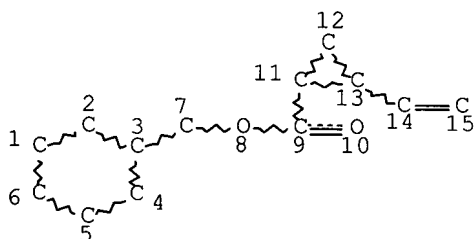


=&gt; d que 129

L3

STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

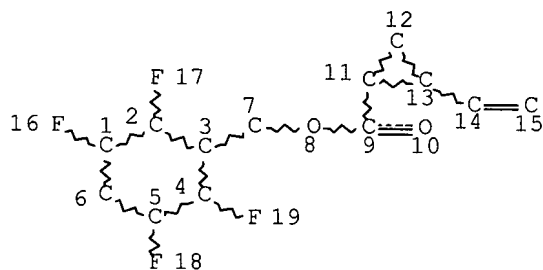
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON TRIISOPROPYL?/CNS AND  
TRIOXANE?/CNS

L7

STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L9 6805 SEA FILE=REGISTRY SSS FUL L3  
L13 751 SEA FILE=REGISTRY SUB=L9 SSS FUL L7  
L14 820 SEA FILE=HCAPLUS ABB=ON PLU=ON L13  
L15 82 SEA FILE=HCAPLUS ABB=ON PLU=ON L5  
L16 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND L15  
L26 5 SEA FILE=REGISTRY ABB=ON PLU=ON 7580-12-3/CRN  
L27 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L26  
L28 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L27 AND L14  
L29 11 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 OR L28

=> sel 129 hit rn 1-  
E13 THROUGH E28 ASSIGNED

=> d 129 1-11 ibib ed abs hitstr hitind

L29 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007:142462 HCAPLUS Full-text  
 DOCUMENT NUMBER: 146:200245  
 TITLE: Synergistic insecticides containing pyrethroids on  
 sublimable carriers  
 INVENTOR(S): Hayami, Tomoko; Omatsu, Mizue; Nakayama, Koji  
 PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007031284	A	20070208	JP 2005-212021	20050722
PRIORITY APPLN. INFO.:			JP 2005-212021	20050722

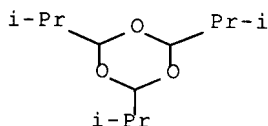
ED Entered STN: 08 Feb 2007

AB A composition containing (a) empenethrin and (b) profluthrin and/or metofluthrin at an (a):(b) weight ratio of 10:1-1:1 is supported on a sublimable carrier and stored in a flexible bag to obtain an agent with high insecticidal effect. As sublimable material, 2,4,6-triisopropyl-1,3,5-trioxane or adamantane is preferred. Volatilization of the pyrethroids and sublimation of the carrier are completed at almost the same time, the end-point of use is clear.

IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 223419-20-3, Profluthrin 240494-70-6, Metofluthrin  
 (synergistic insecticides containing pyrethroids supported on sublimable carriers and stored in flexible bag)

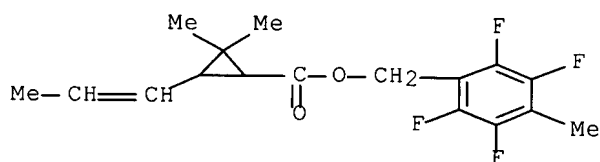
RN 7580-12-3 HCAPLUS

CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)

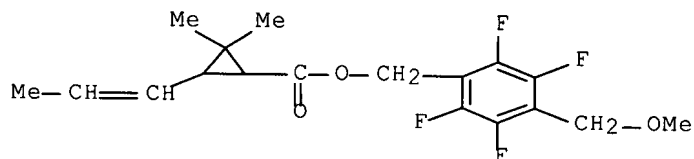


RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



RN 240494-70-6 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
 NAME)



CC 5-4 (Agrochemical Bioregulators)  
 IT 281-23-2, Adamantane 7580-12-3, 2,4,6-Triisopropyl-1,3,5-  
 trioxane 54406-48-3, Empenthrin 223419-20-3, Profluthrin  
 240494-70-6, Metofluthrin  
 (synergistic insecticides containing pyrethroids supported on  
 sublimable carriers and stored in flexible bag)

L29 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:1275307 HCAPLUS Full-text  
 DOCUMENT NUMBER: 146:21737  
 TITLE: Cartridge for volatilization of chemicals such as  
 insecticides  
 INVENTOR(S): Minamide, Yoshihiro  
 PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006325404	A	20061207	JP 2005-149262	20050523
PRIORITY APPLN. INFO.:			JP 2005-149262	20050523

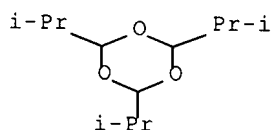
OTHER SOURCE(S): MARPAT 146:21737

ED Entered STN: 07 Dec 2006

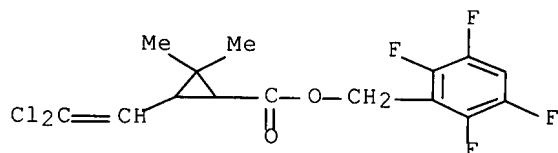
AB The invention provides a chemical cartridge with a shaft center for connecting with the rotating support shaft of a chemical volatilization apparatus with a rotor. At least part of the surface of the shaft center, where the sublimable or gel-forming carrier is stored, is transparent. The cartridge features a shield component that is provided with a mechanism whereby the air vent, shut off by an elastic body when the apparatus is not rotating, is opened through centrifugal force. The cartridge is configured so that the use end point can

be recognized by observing disappearance of the sublimable or gel-forming carrier accompanying rotation through the transparent area on the top. When the cartridge was used to volatilize 4-methoxymethyl-2,3,5,6-tetrafluorobenzyl-2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate in a living room, the insecticidal effect on mosquitoes and blackflies was satisfactory, and the end-point of volatilization could be recognized by the disappearance of the blue adamantane tablet (carrier) at .apprx.240 h of use.

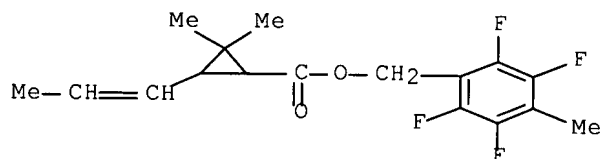
- IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 67640-15-7 223419-20-3 240494-70-6  
 352664-73-4, 4-Propargyl-2,3,5,6-tetrafluorobenzyl-2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate  
 (cartridge for volatilization of chems. such as insecticides supported on sublimable or gel-forming carrier)
- RN 7580-12-3 HCAPLUS
- CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



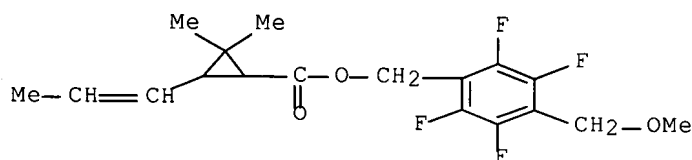
- RN 67640-15-7 HCAPLUS
- CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



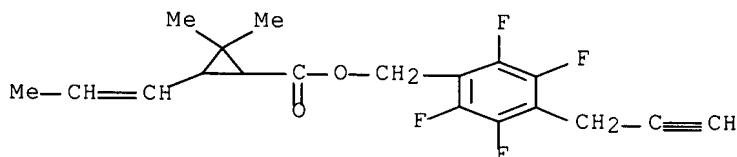
- RN 223419-20-3 HCAPLUS
- CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



- RN 240494-70-6 HCAPLUS
- CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX NAME)



RN 352664-73-4 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 [2,3,5,6-tetrafluoro-4-(2-propyn-1-yl)phenyl]methyl ester (CA INDEX  
 NAME)



CC 5-4 (Agrochemical Bioregulators)  
 IT 281-23-2, Adamantane 7580-12-3, 2,4,6-Triisopropyl-1,3,5-  
 trioxane 67640-15-7 84937-88-2 223419-20-3  
 240494-70-6 352664-73-4, 4-Propargyl-2,3,5,6-  
 tetrafluorobenzyl-2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate  
 (cartridge for volatilization of chems. such as insecticides  
 supported on sublimable or gel-forming carrier)

L29 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:1146770 HCAPLUS Full-text  
 DOCUMENT NUMBER: 145:450413  
 TITLE: Insecticidal agent comprising pyrethroid on  
 sublimable carrier  
 INVENTOR(S): Hayami, Tomoko; Omatsu, Mizue; Nakayama, Koji  
 PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

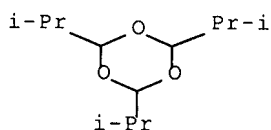
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006296351	A	20061102	JP 2005-125781	20050422
PRIORITY APPLN. INFO.:			JP 2005-125781	20050422

ED Entered STN: 02 Nov 2006

AB An agent with high insecticidal effect and excellent manufacturability  
 comprises a sublimable carrier that supports 1 or 2 pyrethroids volatile at  
 normal temperature (selected from empenethrin, transfluthrin, profluthrin, and  
 metofluthrin) and that is stored in a flexible bag. As for this bag, one or  
 both sides is nonwoven fabric or Japanese paper (10-50 g/m<sup>2</sup>) laminated on the  
 inner surface with a permeable film 10-30 μm thick; in the case of one side,  
 the other side is formed of a chemical impermeable film. At least part of the

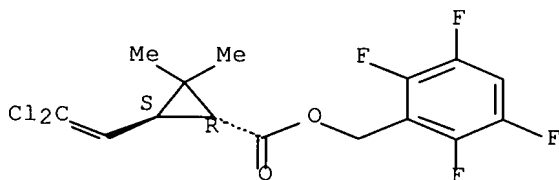
support body comes in contact with the inner surface of the bag even when the carrier sublimates during use, and the use end point can be recognized by observation of the disappearance of the carrier. Thus, 20 mg of profluthrin supported on 2.0 g of Sunsubly was stored in a bag made of Japanese paper (20 g/m<sup>2</sup>) laminated on the inner surface with polyethylene. When the product was placed in a drawer of clothes, there was no insect damage of the clothing over 1 yr, and the end point was clear.

- IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
(Sunsubly; insecticidal agent comprising pyrethroid on sublimable carrier in bag of paper or nonwoven fabric laminated with permeable film)  
RN 7580-12-3 HCAPLUS  
CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)

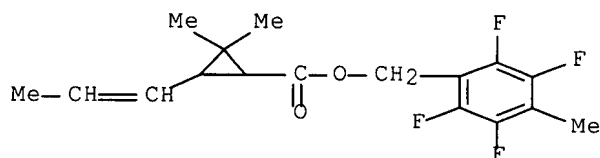


- IT 118712-89-3, Transfluthrin 223419-20-3, Profluthrin  
240494-70-6, Metofluthrin  
(insecticidal agent comprising pyrethroid on sublimable carrier in bag of paper or nonwoven fabric laminated with permeable film)  
RN 118712-89-3 HCAPLUS  
CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



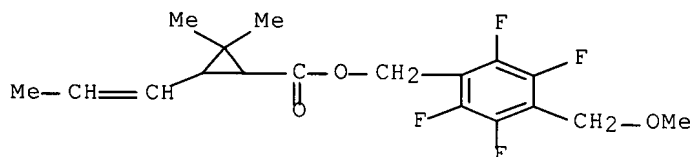
- RN 223419-20-3 HCAPLUS  
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



- RN 240494-70-6 HCAPLUS  
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,

10/783,072

[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX NAME)

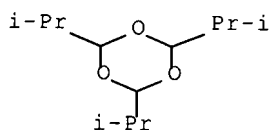


CC 5-4 (Agrochemical Bioregulators)  
 IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (Sunsably; insecticidal agent comprising pyrethroid on sublimable carrier in bag of paper or nonwoven fabric laminated with permeable film)  
 IT 281-23-2, Adamantane 54406-48-3, Empenthrin 118712-89-3, Transfluthrin 223419-20-3, Profluthrin 240494-70-6, Metofluthrin  
 (insecticidal agent comprising pyrethroid on sublimable carrier in bag of paper or nonwoven fabric laminated with permeable film)

L29 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:1146763 HCAPLUS Full-text  
 DOCUMENT NUMBER: 145:450412  
 TITLE: Apparatus for volatilization of chemicals such as insecticides  
 INVENTOR(S): Minamide, Yoshihiro  
 PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006296335	A	20061102	JP 2005-125028	20050422
PRIORITY APPLN. INFO.:			JP 2005-125028	20050422

OTHER SOURCE(S): MARPAT 145:450412  
 ED Entered STN: 02 Nov 2006  
 AB In a device that volatilizes chems. such as cyclopropanecarboxylate insecticides from a sublimable substance (e.g., adamantane) or a gel-forming support, the support is rotated by a drive unit, and the chemical is volatilized under the action of centrifugal force. The support body is stored in a flexible bag formed of permeable paper or nonwoven fabric, and at least part comes in contact with the inner surface even when the support body is reduced during use. The end-point of volatilization of the chemical can be recognized by visual observation of the disappearance of the carrier.  
 IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (Sunsably; apparatus for volatilization of insecticide on sublimable or gel-forming support stored in bag made of paper or nonwoven fabric)  
 RN 7580-12-3 HCAPLUS  
 CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)

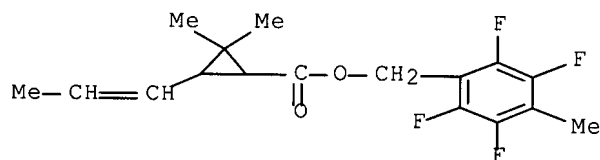


IT 223419-20-3 240494-68-2

(apparatus for volatilization of insecticide on sublimable or gel-forming support stored in bag made of paper or nonwoven fabric)

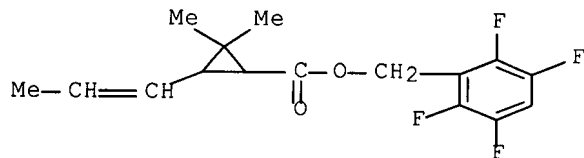
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



RN 240494-68-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



CC 5-4 (Agrochemical Bioregulators)

IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane

(Sunsubly; apparatus for volatilization of insecticide on sublimable or gel-forming support stored in bag made of paper or nonwoven fabric)

IT 281-23-2, Adamantane 84937-88-2 223419-20-3

240494-68-2

(apparatus for volatilization of insecticide on sublimable or gel-forming support stored in bag made of paper or nonwoven fabric)

L29 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:510734 HCAPLUS Full-text

DOCUMENT NUMBER: 145:2580

TITLE: Apparatus for volatilizing chemicals supported on sublimable or gel-forming carrier

INVENTOR(S): Minamide, Yoshihiro

PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese



FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006136313	A	20060601	JP 2005-146315	20050519
PRIORITY APPLN. INFO.:			JP 2004-298266	A 20041012

OTHER SOURCE(S): MARPAT 145:2580

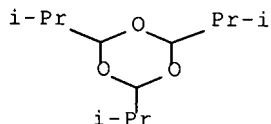
ED Entered STN: 01 Jun 2006

AB In an improved fan-type apparatus for volatilization of a chemical supported on a carrier, the carrier is a sublimable substance (e.g., adamantane) or a gel former. The end-point of volatilization of the chemical can be recognized by visual observation of the disappearance of the carrier during use. Thus, 50 mg of 2,3,5,6-tetrafluorobenzyl-2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate supported on 4.5 g of Sunsubly maintained superior insecticidal effect for 240 h, and the end-point was easily recognized.

IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
(Sunsubly; apparatus for volatilizing chems. supported on sublimable or gel-forming carrier)

RN 7580-12-3 HCAPLUS

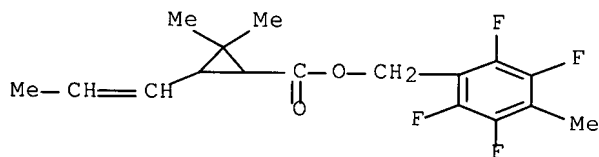
CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



IT 223419-20-3 240494-68-2 352664-73-4,  
4-Propargyl-2,3,5,6-tetrafluorobenzyl-2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate 358750-43-3  
(apparatus for volatilizing chems. supported on sublimable or gel-forming carrier)

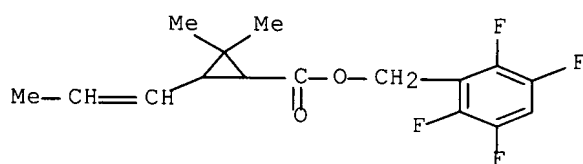
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
(2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



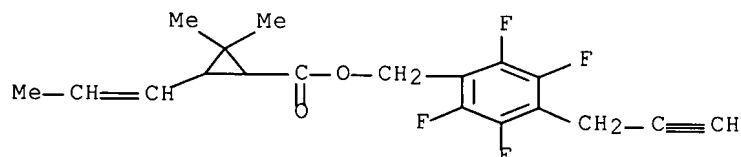
RN 240494-68-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
(2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



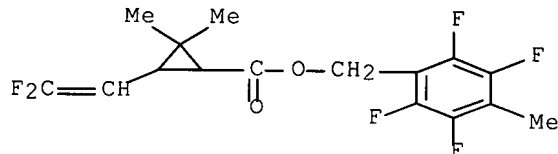
RN 352664-73-4 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, [2,3,5,6-tetrafluoro-4-(2-propyn-1-yl)phenyl]methyl ester (CA INDEX NAME)



RN 358750-43-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-difluoroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



CC 5-4 (Agrochemical Bioregulators)

IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
(Sunsably; apparatus for volatilizing chems. supported on sublimable or gel-forming carrier)

IT 131-11-3, Dimethyl phthalate 84937-88-2 223419-20-3  
240494-68-2 352664-73-4, 4-Propargyl-2,3,5,6-tetrafluorobenzyl-2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate  
358750-43-3 851465-50-4  
(apparatus for volatilizing chems. supported on sublimable or gel-forming carrier)

L29 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:1146104 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 143:401161

TITLE: Device for volatilization of insecticides from sublimable or gel-forming carrier

INVENTOR(S): Minamide, Yoshihiro

PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005295996	A	20051027	JP 2004-298040	20041012
PRIORITY APPLN. INFO.:			JP 2003-379812	A 20031110
			JP 2004-72214	A 20040315

OTHER SOURCE(S): MARPAT 143:401161

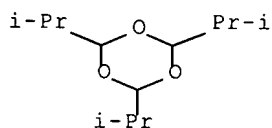
ED Entered STN: 27 Oct 2005

AB In an apparatus for chems. such as cyclopropanecarboxylate insecticides that are supported on a carrier, the support is rotated by a drive unit and the chemical is volatilized under the action of centrifugal force. The apparatus is made in a way that the end-point of volatilization of the chemical can be recognized. The carrier is a sublimable substance such as adamantane or a gel-forming carrier.

IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (Sunsably; apparatus for volatilization of insecticides from sublimable or gel-forming carrier)

RN 7580-12-3 HCAPLUS

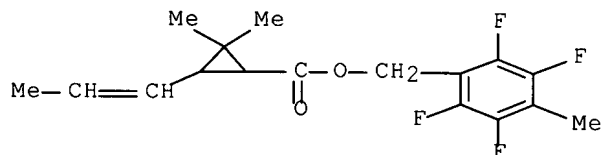
CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



IT 223419-20-3 240494-68-2 352664-73-4,  
 4-Propargyl-2,3,5,6-tetrafluorobenzyl-2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate 358750-43-3  
 (apparatus for volatilization of insecticides from sublimable or gel-forming carrier)

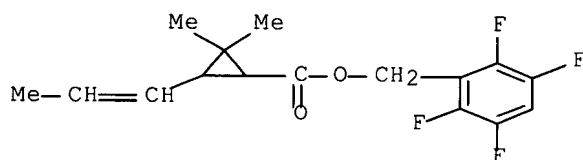
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)

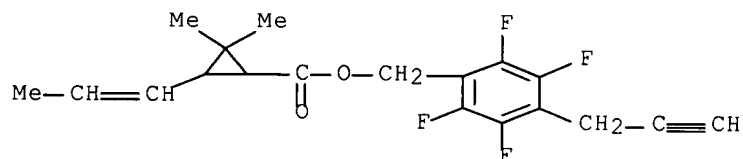


RN 240494-68-2 HCAPLUS

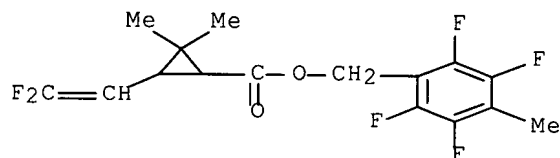
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



RN 352664-73-4 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 [2,3,5,6-tetrafluoro-4-(2-propyn-1-yl)phenyl]methyl ester (CA INDEX  
 NAME)



RN 358750-43-3 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 3-(2,2-difluoroethenyl)-2,2-dimethyl-,  
 (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



IC ICM A01M001-20  
 ICS A01N025-18; A61L009-12; A01N053-06  
 CC 5-4 (Agrochemical Bioregulators)  
 IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (Sunsably; apparatus for volatilization of insecticides from sublimable  
 or gel-forming carrier)  
 IT 281-23-2, Adamantane 84937-88-2 223419-20-3  
 240494-68-2 352664-73-4, 4-Propargyl-2,3,5,6-  
 tetrafluorobenzyl-2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate  
 358750-43-3 851465-50-4  
 (apparatus for volatilization of insecticides from sublimable or  
 gel-forming carrier)

L29 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:547279 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143:54948  
 TITLE: Insecticidal composition for textiles comprising a  
 pyrethroid and a trioxane derivative  
 INVENTOR(S): Tsushima, Kazunori  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.

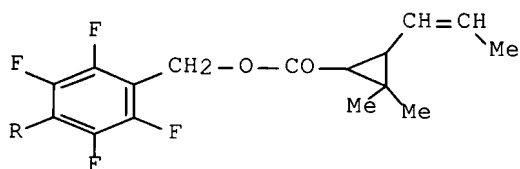
CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005137250	A1	20050623	US 2003-738079	20031217
EP 1552747	A1	20050713	EP 2004-377	20040109

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRIORITY APPLN. INFO.: US 2003-738079 A 20031217

ED Entered STN: 24 Jun 2005  
 GI



I

AB An insecticidal composition for textiles comprises a pyrethroid I (R = Me or methoxymethyl) and 2,4,6-triisopropyl-1,3,5-trioxane, wherein the weight ratio of I to 2,4,6-triisopropyl-1,3,5-trioxane is 1:4000 to 1:4.

IT 854155-34-3 854155-35-4  
 (insecticidal composition for textiles)

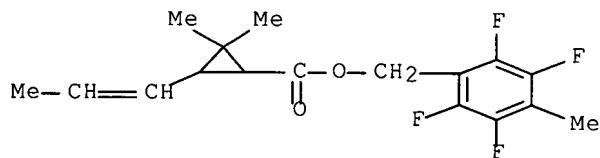
RN 854155-34-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, mixt. with 2,4,6-tris(1-methylethyl)-1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1

CRN 223419-20-3

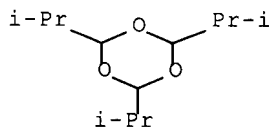
CMF C17 H18 F4 O2



CM 2

CRN 7580-12-3

CMF C12 H24 O3



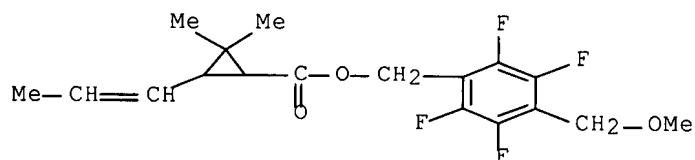
RN 854155-35-4 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-, [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester, mixt. with 2,4,6-tris(1-methylethyl)-1,3,5-trioxane (9CI) (CA INDEX NAME)

CM 1

CRN 240494-70-6

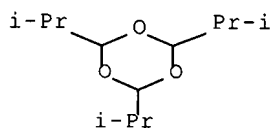
CMF C18 H20 F4 O3



CM 2

CRN 7580-12-3

CMF C12 H24 O3



IC ICM A01N043-32

ICS A01N053-00

INCL 514452000; 514531000; 442123000

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 40

IT 854155-34-3 854155-35-4

(insecticidal composition for textiles)

L29 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:545299 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 143:54946

TITLE: Apparatus for volatilization of chemicals

INVENTOR(S): Minamide, Yoshihiro

PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005160469	A	20050623	JP 2004-299536	20041014
PRIORITY APPLN. INFO.:			JP 2003-379813	A 20031110

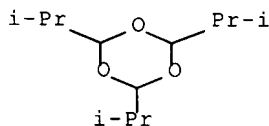
ED Entered STN: 24 Jun 2005

AB The apparatus contains carrier-supported chems., a unit for volatilization of the chems. from the carriers by centrifugal force or a fan, and a gas-permeable article which contains a sublimable substance and is placed near the carriers to indicate the end of use of the carrier-supported chems. by visualization of the sublimation and disappearance of the sublimable substances. 4-Methoxymethyl-2,3,5,6-tetrafluorobenzyl 2,2-dimethyl-3-(1-propenyl)cyclopropanecarboxylate (I) (50 mg) was supported on 1.0 g Viscoppearl (cellulose beads) and placed in a circular cartridge containing a fan, blue-colored sheet-shaped Sunsubly (2,4,6-triisopropyl-1,3,5-trioxane) was packaged with a polyester film and placed at the upper part of the circular cartridge, and the cartridge was attached to a volatilization apparatus having a motor and a dry battery. Insects were effectively controlled during gardening for 6 h by attaching the apparatus around the waist and volatilizing I.

IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (Sunsubly; volatilization apparatus containing sublimable substances as indicators of end of carrier-supported volatile chems.)

RN 7580-12-3 HCAPLUS

CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)

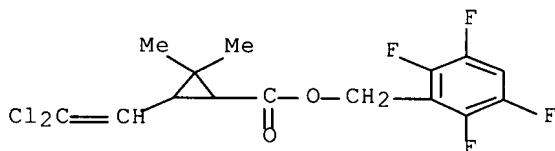


IT 67640-15-7 240494-70-6

(volatile insecticide; volatilization apparatus containing sublimable substances as indicators of end of carrier-supported volatile chems.)

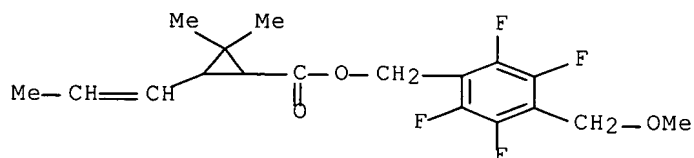
RN 67640-15-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



10/783,072

RN 240494-70-6 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
 NAME)



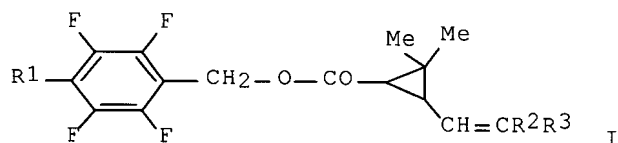
IC ICM A01M001-20  
 ICS A01N025-18; A61L009-12  
 CC 5-4 (Agrochemical Bioregulators)  
 IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (Sunsbly; volatilization apparatus containing sublimable substances as  
 indicators of end of carrier-supported volatile chems.)  
 IT 67640-15-7 240494-70-6  
 (volatile insecticide; volatilization apparatus containing sublimable  
 substances as indicators of end of carrier-supported volatile  
 chems.)

L29 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:428222 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:477465  
 TITLE: Mothproofing materials containing  
 tetrafluorobenzyl alcohol esters for clothing  
 INVENTOR(S): Matsunaga, Tadakatsu; Kawasaki, Maki  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

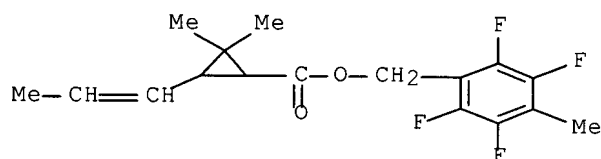
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005126407	A	20050519	JP 2004-65223	20040309
EP 1563735	A1	20050817	EP 2004-3503	20040217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005186874	A1	20050825	US 2004-783072	20040220
PRIORITY APPLN. INFO.:				
			JP 2003-154447	A 20030530
			JP 2003-154448	A 20030530
			JP 2003-337256	A 20030929

OTHER SOURCE(S): MARPAT 142:477465  
 ED Entered STN: 20 May 2005  
 GI



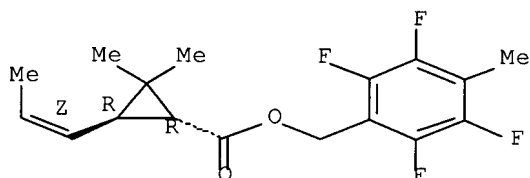


- AB The mothproofing materials contain tetrafluorobenzyl alc. esters I ( $R_1 = H, Me, MeO, MeOCH_2$ ;  $R_2, R_3 = Cl, H, Me$ ) and 2,4,6-triisopropyl-1,3,5-trioxane (II) and are covered with films of ethylene-vinyl acetate copolymer, ethylene-Me methacrylate copolymer, or polyethylene (d. 0.91-0.94 g/cm<sup>3</sup>). A mixture containing 10 mg 2,3,5,6-tetrafluoro-4-methylbenzyl (1R)-trans-3-[1-propenyl (Z/E=8/1)]-2,2-dimethylcyclopropanecarboxylate and 2000 mg II was press-formed into a disk shape, sandwiched between LLDPE films (UB-1; d. 0.92 g/cm<sup>3</sup>), and the films were heat-sealed on 3 sides to give a mothproofing material. Cotton fabric bags containing eggs of *Tineola bisselliella* were placed in a case (725 mm + 427 mm + 158 mm) containing 2 of the mothproofing materials and stored at 25° for 1 wk, and the insects were 100% controlled.
- IT 223419-20-3 223419-30-5 240494-69-3  
240494-70-6 271241-14-6 557086-46-1  
(mothproofing materials containing tetrafluorobenzyl cyclopropanecarboxylate esters mixed with triisopropyltrioxane and covered with plastic films)
- RN 223419-20-3 HCAPLUS
- CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



- RN 223419-30-5 HCAPLUS
- CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1Z)-1-propen-1-yl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)- (CA INDEX NAME)

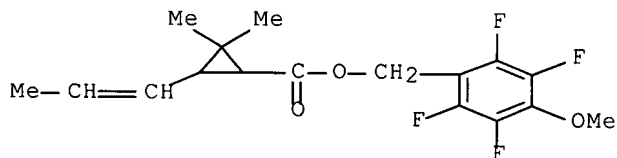
Absolute stereochemistry.  
Double bond geometry as shown.



- RN 240494-69-3 HCAPLUS

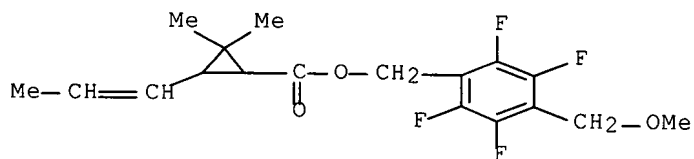
10/783,072

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-,  
(2,3,5,6-tetrafluoro-4-methoxyphenyl)methyl ester (9CI) (CA INDEX  
NAME)



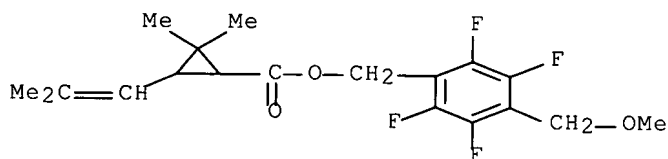
RN 240494-70-6 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-,  
[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
NAME)



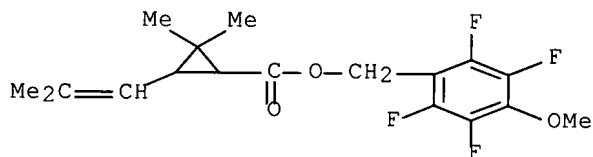
RN 271241-14-6 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-,  
[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
NAME)

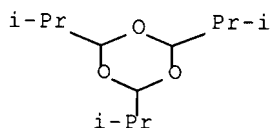


RN 557086-46-1 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-,  
(2,3,5,6-tetrafluoro-4-methoxyphenyl)methyl ester (9CI) (CA INDEX  
NAME)



IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (mothproofing materials containing tetrafluorobenzyl  
 cyclopropanecarboxylate esters mixed with triisopropyltrioxane and  
 covered with plastic films)  
 RN 7580-12-3 HCAPLUS  
 CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



IC ICM A01N053-06  
 ICS A01N025-18; A01N043-32  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 38  
 IT 223419-20-3 223419-30-5 240494-69-3  
 240494-70-6 271241-14-6 557086-46-1  
 (mothproofing materials containing tetrafluorobenzyl  
 cyclopropanecarboxylate esters mixed with triisopropyltrioxane and  
 covered with plastic films)  
 IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (mothproofing materials containing tetrafluorobenzyl  
 cyclopropanecarboxylate esters mixed with triisopropyltrioxane and  
 covered with plastic films)

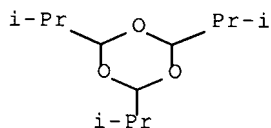
L29 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:405028 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:431359  
 TITLE: Polyolefin-based packaging materials and  
 mothproofing products using them for clothing  
 INVENTOR(S): Nitta, Kimiyoshi; Takahata, Hiroaki; Kawasaki,  
 Maki  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005119286	A	20050512	JP 2004-274830	20040922
PRIORITY APPLN. INFO.:			JP 2003-333140	A 20030925

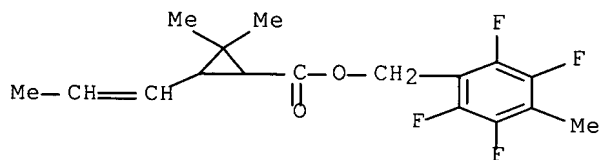
ED Entered STN: 12 May 2005  
 AB The materials contain olefin polymer layers laminated with gas-barrier layers  
 with peeling strength 0.1-3 N/15 mm. Mothproofing agents showing vapor  
 pressure (at 25°) ≥10-5 mmHg are packaged with the materials so that the  
 olefin polymer layers are located inside of the gas-barrier layers. Thus, an  
 insecticide tablet was placed in a cup and sealed with a laminated film  
 comprising Sumikathene F 200-0-Admer NF 500 blend/Eval F 101A/Admer NF  
 500/adhesive/Sevix (gas-barrier film). The insecticide did not diffuse to

interlayer parts of the laminated film and completely remained in the container during storage at 40° for 1 wk.

- IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
(extender; polyolefin-based gas-barrier packaging materials for mothproofing products for clothing)
- RN 7580-12-3 HCAPLUS
- CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)

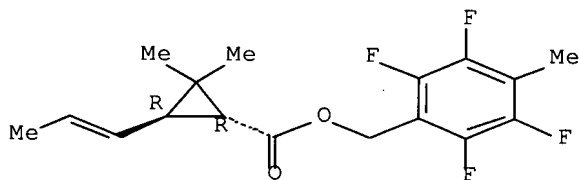


- IT 223419-20-3 409098-90-4  
(polyolefin-based gas-barrier packaging materials for mothproofing products for clothing)
- RN 223419-20-3 HCAPLUS
- CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



- RN 409098-90-4 HCAPLUS
- CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



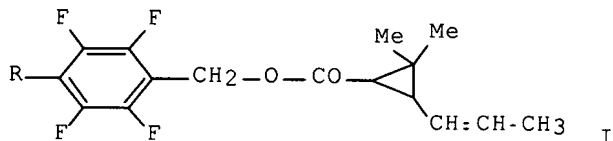
- IC ICM B32B027-32  
ICS A01N025-18; A01N053-06; B32B027-00; B65D065-40
- CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 5
- IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
(extender; polyolefin-based gas-barrier packaging materials for mothproofing products for clothing)

IT 223419-20-3 409098-90-4  
 (polyolefin-based gas-barrier packaging materials for mothproofing products for clothing)

L29 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:411610 HCAPLUS Full-text  
 DOCUMENT NUMBER: 140:401771  
 TITLE: Mothproofing compositions containing fluorobenzyl esters and trioxane derivative enhancer and mothproofing using them  
 INVENTOR(S): Tsushima, Kazuhiro  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004143146	A	20040520	JP 2003-208592	20030825
PRIORITY APPLN. INFO.:			JP 2002-253213	A 20020830

ED Entered STN: 21 May 2004  
 GI



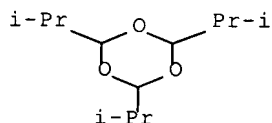
AB Title compns. contain fluorobenzyl esters I (R = Me, MeOCH<sub>2</sub>) and 2,4,6-triisopropyl-1,3,5-trioxane (II). Thus, tablets comprising 10 mg (1R)-trans-I (R = Me) (Z/E = 8/1) and 2000 mg II showed 100% lethal effect on *Tineola bisselliella*.

IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 223419-20-3 240494-70-6 333722-00-2  
 409098-90-4

(mothproofing compns. containing fluorobenzyl propenyldimethylcyclopropanecarboxylates and triisopropyltrioxane enhancer)

RN 7580-12-3 HCAPLUS

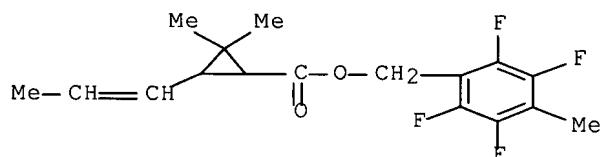
CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



10/783,072

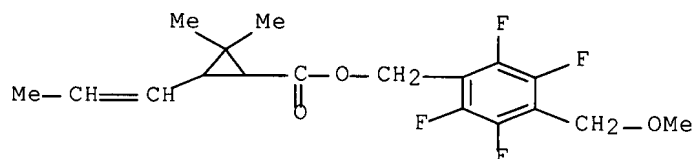
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
(2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



RN 240494-70-6 HCAPLUS

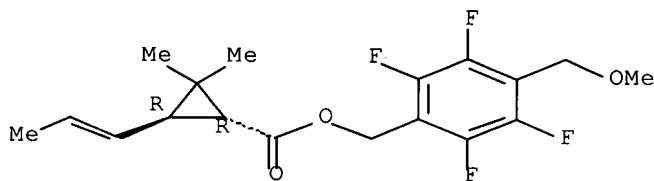
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX NAME)



RN 333722-00-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-,  
[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester, (1R,3R)-  
(9CI) (CA INDEX NAME)

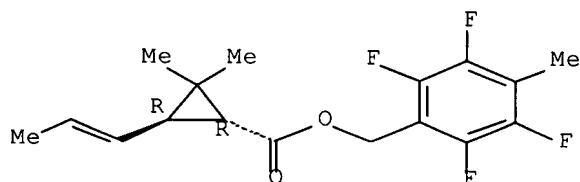
Absolute stereochemistry.  
Double bond geometry unknown.



RN 409098-90-4 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-,  
(2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)- (9CI) (CA INDEX NAME)

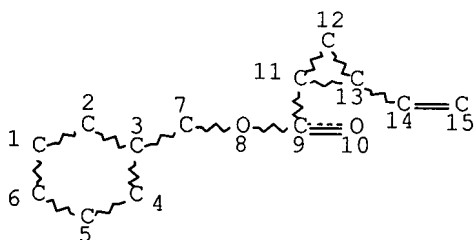
Absolute stereochemistry.  
Double bond geometry unknown.



IC ICM A01N025-00  
 ICS A01N053-06  
 CC 5-4 (Agrochemical Bioregulators)  
 IT 7580-12-3, 2,4,6-Triisopropyl-1,3,5-trioxane  
 223419-20-3 240494-70-6 333722-00-2  
 409098-90-4  
 (mothproofing comps. containing fluorobenzyl  
 propenyldimethylcyclopropanecarboxylates and triisopropyltrioxane  
 enhancer)

=> d que 121

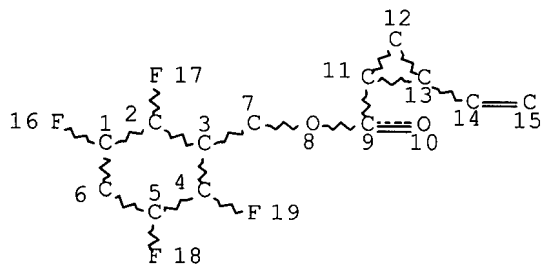
L3 STR



NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE  
 L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON TRIISOPROPYL?/CNS AND  
 TRIOXANE?/CNS  
 L7 STR



NODE ATTRIBUTES:  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

L9 6805 SEA FILE=REGISTRY SSS FUL L3  
 L13 751 SEA FILE=REGISTRY SUB=L9 SSS FUL L7  
 L14 820 SEA FILE=HCAPLUS ABB=ON PLU=ON L13  
 L15 82 SEA FILE=HCAPLUS ABB=ON PLU=ON L5  
 L16 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND L15  
 L18 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND (POLYMER? OR  
 PLASTIC?)/SC,SX  
 L21 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 NOT L16

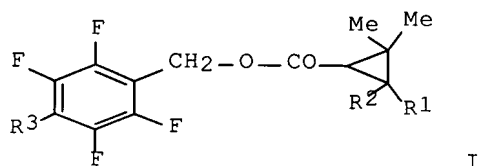
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L21 ANSWER 1 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2007:352261 HCAPLUS Full-text  
 DOCUMENT NUMBER: 146:353019  
 TITLE: Preservation of pyrethroids retained on  
 thermoplastic with laminated film  
 INVENTOR(S): Iwasaki, Tomonori; Takahata, Hiroaki; Nitta,  
 Kimiyoshi  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 11pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2007077068	A	20070329	JP 2005-266647	20050914
PRIORITY APPLN. INFO.:			JP 2005-266647	20050914

OTHER SOURCE(S): MARPAT 146:353019  
 ED Entered STN: 29 Mar 2007  
 GI





AB In a method for preserving insecticidal esters (I, where R1 = H, Me; R2 = Me, CH:CR21R22; R21, R22 = independently H, Me, Cl; R3 = H, Me, MeOCH2) retained on a thermoplastic resin and covered with a laminated film, the surface layer on one side is undrawn ethylene-vinyl alc. copolymer, and the laminated film has a layer selected from a stretched polyalkylene layer, stretched polyamide layer, and an aluminum layer. The product shows a stable pest-control effect even after long-term storage. Thus, ethylene-Me methacrylate copolymer and 2,3,5,6-tetrafluoro-4-methoxymethylbenzyl 1R-trans-3-(1-propenyl)-2,2-dimethylcyclopropanecarboxylate were melt blended and, while extruding, hot-cut into pellets. These pellets and linear low-d. polyethylene pellets were kneaded and extruded to obtain a pest control agent, which was heat-sealed in a laminated film bag made with ethylene vinyl-alc. copolymer and biaxially stretched polyethylene terephthalate. After 2 wk storage at 60°, the insecticide was removed from the bag and hung in a laboratory where 10 mosquitoes (*Culex pipiens pallens*) were released; after 20 min, 9 were knocked down, whereas when a similar product that was sealed in a in a polypropylene/aluminum laminated bag was used, only 1 mosquito was knocked down.

IT 240494-71-7

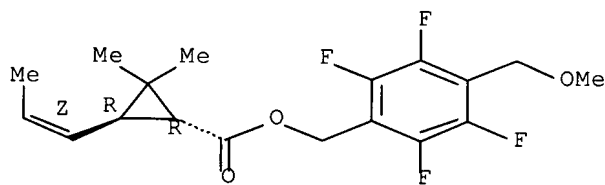
(preservation of pyrethroid insecticides retained on thermoplastic resin by covering with laminated film)

RN 240494-71-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1Z)-1-propen-1-yl-, [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester, (1R,3R)- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38

IT 240494-71-7

(preservation of pyrethroid insecticides retained on thermoplastic resin by covering with laminated film)

L21 ANSWER 2 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:142763 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 146:200247

TITLE: Control of clothing pests with pyrethroids

INVENTOR(S): Kanno, Masayo

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007031401	A	20070208	JP 2005-220347	20050729
PRIORITY APPLN. INFO.:			JP 2005-220347	20050729

ED Entered STN: 08 Feb 2007

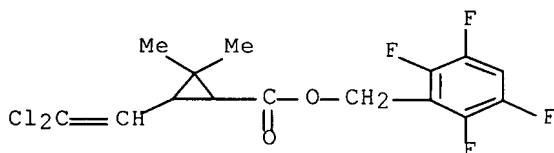
AB To control insects, a pesticide supported on a carrier is installed in the place where garments are stored. The carrier consists of a three-dimensional fabric with fibers connecting the front and back layers, with  $\geq 1$  layer being a mesh fabric. The insecticidal component may be, e.g., 2,3,5,6-tetrafluoro-4-(methoxymethyl)benzyl 3-(1-propenyl)-2,2-dimethylcyclopropanecarboxylate.

IT 67640-15-7 223419-20-3 223419-30-5  
240494-70-6

(control of clothing pests with pyrethroids supported on fabric carrier)

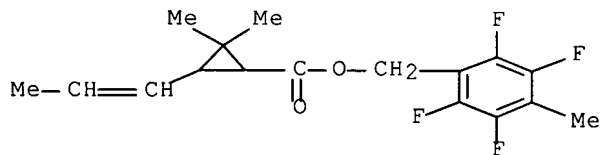
RN 67640-15-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



RN 223419-20-3 HCAPLUS

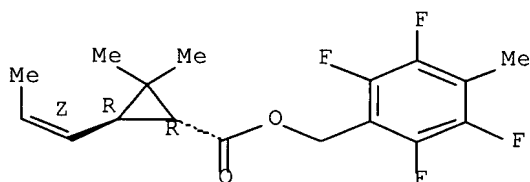
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



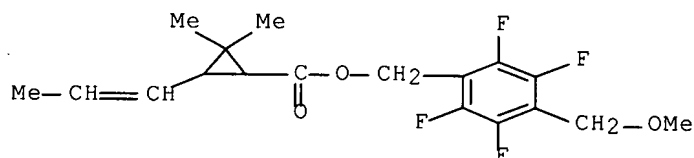
RN 223419-30-5 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1Z)-1-propen-1-yl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)- (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



RN 240494-70-6 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
 NAME)



CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 38, 40  
 IT 67640-15-7 84937-88-2 223419-20-3  
 223419-30-5 240494-70-6  
 (control of clothing pests with pyrethroids supported on fabric  
 carrier)

L21 ANSWER 3 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:1278314 HCAPLUS Full-text  
 DOCUMENT NUMBER: 146:2105  
 TITLE: Insecticidal ester preservation by covering with  
 aluminum foil and sealing in laminated bag  
 INVENTOR(S): Iwasaki, Tomonori  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006327938	A	20061207	JP 2005-149039	20050523
PRIORITY APPLN. INFO.:			JP 2005-149039	20050523

OTHER SOURCE(S): MARPAT 146:2105

ED Entered STN: 07 Dec 2006

AB In a method for preserving an insecticidal ester on a thermoplastic resin, the pest control agent is covered with an aluminum monolayer. Thus, ethylene-Me methacrylate copolymer and 2,3,5,6-tetrafluoro-4-methoxymethylbenzyl 1R-trans-3-(1-propenyl)-2,2-dimethylcyclopropanecarboxylate were melt blended and, while extruding, hot-cut into pellets. The pellets obtained and low-d. polyethylene were mixed and extruded to form a molded body that was cut,

inserted in aluminum foil, and heat-sealed to obtain an agent sealed in a laminated bag. The product was stored at 60° for 2 wk, then the bag was opened, the aluminum foil removed, and the agent was hung from the ceiling. In a test with *Culex pipiens pallens*, the stored insecticide knocked down 9 of 10 mosquitoes in 20 min.

IT 240494-71-7

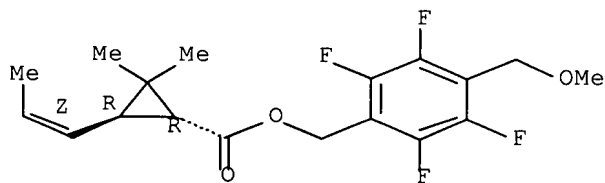
(preservation of pyrethroids on thermoplastic resin by covering with aluminum foil and sealing in laminated bag)

RN 240494-71-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1Z)-1-propen-1-yl-, [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester, (1R,3R)- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38

IT 240494-71-7

(preservation of pyrethroids on thermoplastic resin by covering with aluminum foil and sealing in laminated bag)

L21 ANSWER 4 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:975190 HCAPLUS Full-text

DOCUMENT NUMBER: 145:329895

TITLE: Insect control products providing stable volatilization of pyrethroids

INVENTOR(S): Ueda, Minoru; Watanabe, Keisuke

PATENT ASSIGNEE(S): Sumika Life Tech Co., Ltd., Japan; Sumitomo Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 8pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

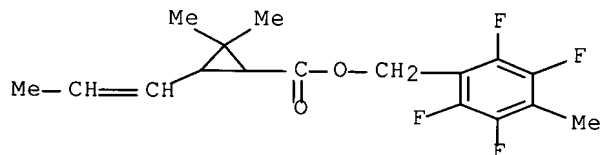
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2006248962	A	20060921	JP 2005-66673	20050310
PRIORITY APPLN. INFO.:			JP 2005-66673	20050310

ED Entered STN: 21 Sep 2006

AB The invention provides an insect control product whose active component is volatilized at a constant rate, the amount volatilized hardly being affected by wind conditions (air flow) on the surface of the article, wind speed and amount, etc. The products, which can be used effectively within a desired period, have an insecticidal component with a vapor pressure of  $\geq 1.0 \times 10^{-5}$  mm Hg on a porous sheet support, such as kraft paper, and the sheet is sealed and

stored in a bag consisting of 10-100- $\mu$ m thick polyolefin film. Thus, stable volatilization of empenethrin (vapor pressure  $\geq 1.64 \times 10^{-4}$  mm Hg at 25°) occurred when the insecticide was dripped on kraft paper, sealed in a low-d. polyethylene envelope, and left for  $\geq 70$  days in a room with irregular ventilation.

IT 223419-20-3  
(insect control products providing stable volatilization of pyrethroids supported on porous sheet and sealed in polyolefin bag)  
RN 223419-20-3 HCAPLUS  
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



CC 5-4 (Agrochemical Bioregulators)  
Section cross-reference(s): 38  
IT 54406-48-3, Empenthrin 223419-20-3  
(insect control products providing stable volatilization of pyrethroids supported on porous sheet and sealed in polyolefin bag)

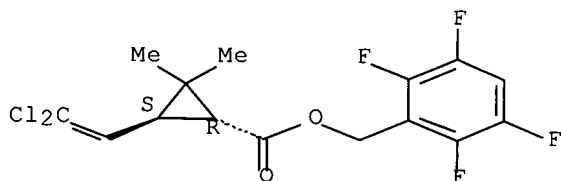
L21 ANSWER 5 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2006:774783 HCAPLUS Full-text  
DOCUMENT NUMBER: 145:337006  
TITLE: Environment-friendly termite- and moth-proof water-thinned adhesive and application thereof  
INVENTOR(S): Chen, Shousheng  
PATENT ASSIGNEE(S): Shanghai Vision Chemical Industry Co., Ltd., Peop. Rep. China; Shenzhen Zhanchenda Chemical Industry Co., Ltd.; Beijing Zhanchen Chemical Co., Ltd.  
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 8pp. CODEN: CNXXEV  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1810906	A	20060802	CN 2005-10023666	20050127
PRIORITY APPLN. INFO.:			CN 2005-10023666	20050127

ED Entered STN: 07 Aug 2006  
AB The title termite- and moth-proof adhesive is composed of (by weight) 90-99.9% emulsion (20-50% solids, of polyvinyl acetate emulsion, polyvinyl alc. solution or their mixture) and 0.1-10% moth-proofing agent (such as aqueous pyrethroid, flufenoxuron emulsion). The adhesive has high mothproofing efficiency and lasting action, and can be used for bonding wood articles such as wood board, medium d. fiber-board, flake-board, etc.  
IT 118712-89-3, Transfluthrin  
(environment-friendly termite- and moth-proof water-thinned adhesive and application thereof)

RN 118712-89-3 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-,  
 (2,3,5,6-tetrafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



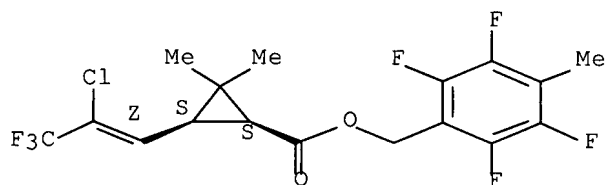
CC 38-3 (Plastics Fabrication and Uses)  
 IT 52315-07-8, Cypermethrin 101463-69-8, Flufenoxuron  
 118712-89-3, Transfluthrin  
 (environment-friendly termite- and moth-proof water-thinned  
 adhesive and application thereof)

L21 ANSWER 6 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2006:197827 HCAPLUS Full-text  
 DOCUMENT NUMBER: 144:287939  
 TITLE: Termite barrier membrane  
 INVENTOR(S): Anderson, Anthony Mark  
 PATENT ASSIGNEE(S): Australia  
 SOURCE: Granted Innovation Pat. (Aust.), 11 pp.  
 CODEN: AUXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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AU 2004100547	A4	20040805	AU 2004-100547	20040708
PRIORITY APPLN. INFO.:			AU 2004-100547	20040708

ED Entered STN: 06 Mar 2006  
 AB A termite barrier membrane is described comprising a layer of fibrous material  
 impregnated with a termiticide and bonded to a flexible sheet. The  
 termiticide can be recharged to the membrane by spraying or injecting into the  
 exposed portion of fibrous material.  
 IT 79538-32-2, Tefluthrin  
 (termite barrier membrane containing termiticides)  
 RN 79538-32-2 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propen-  
 1-yl]-2,2-dimethyl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester,  
 (1R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.  
 Double bond geometry as shown.



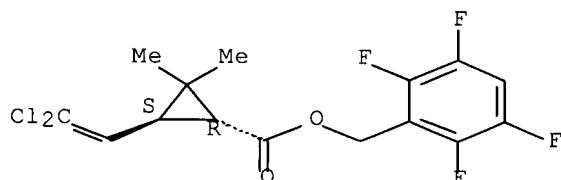
IC ICM E04B001-72  
ICS E04H009-16  
CC 5-4 (Agrochemical Bioregulators)  
Section cross-reference(s): 35  
IT 121-29-9, Pyrethrin 2921-88-2, Chlorpyrifos 9002-86-2, PVC  
9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-20-7,  
Polyvinyl acetate 9003-29-6, Polybutylene 9011-14-7, Poly(methyl  
methacrylate) 11129-12-7, Borate 25014-41-9, Polyacrylonitrile  
25311-71-1, Isofenphos 51630-58-1, Fenvalerate 52315-07-8,  
Cypermethrin 52645-53-1, Permethrin 52918-63-5, Deltamethrin  
68359-37-5, Cyfluthrin 79538-32-2, Tefluthrin 82657-04-3,  
Bifenthrin 91465-08-6 120068-37-3, Fipronil  
(termite barrier membrane containing termiticides)

L21 ANSWER 7 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
ACCESSION NUMBER: 2005:492443 HCAPLUS Full-text  
DOCUMENT NUMBER: 143:2650  
TITLE: Insect repellents for kennel  
INVENTOR(S): Mizutani, Tadato; Watanabe, Keisuke  
PATENT ASSIGNEE(S): Sumika Life Tech Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

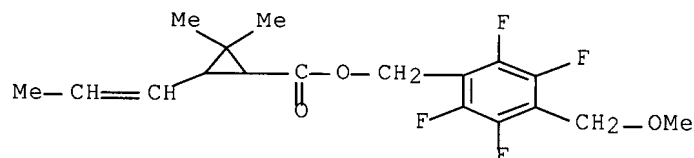
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005145919	A	20050609	JP 2003-388773	20031119
PRIORITY APPLN. INFO.:			JP 2003-388773	20031119

ED Entered STN: 10 Jun 2005  
AB A tape containing a pyrethroid insecticide with vapor pressure  $\geq 1 \times 10^{-6}$  mm Hg at 25° is placed inside as well as outside the kennel to control harmful insects affecting dogs. The tape is made of laminated materials comprising derivs. of polyethylene, polypropylene, vinyl chloride polymer, vinylidene chloride polymer, poly(acrylonitrile), poly(vinyl acetate), polyethers, copolymers thereof, papers, etc. The pyrethroid compds. are metofluthrin and transfluthrin.  
IT 118712-89-3, Transfluthrin 240494-70-6, Metofluthrin  
(insect repellent tape for kennel containing)  
RN 118712-89-3 HCAPLUS  
CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-,  
(2,3,5,6-tetrafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 240494-70-6 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
 NAME)



IC ICM A01N025-18  
 ICS A01N053-06; A01N053-08  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 38  
 IT 118712-89-3, Transfluthrin 240494-70-6, Metofluthrin  
 (insect repellent tape for kennel containing)

L21 ANSWER 8 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2005:489692 HCAPLUS Full-text  
 DOCUMENT NUMBER: 143:21457  
 TITLE: Plates containing pyrethroids for controlling  
 pests in kennels  
 INVENTOR(S): Mizutani, Tadato; Watanabe, Keisuke  
 PATENT ASSIGNEE(S): Sumika Life Tech Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005145920	A	20050609	JP 2003-388774	20031119
PRIORITY APPLN. INFO.:			JP 2003-388774	20031119

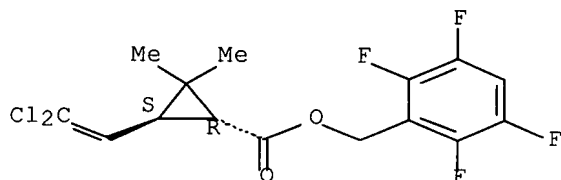
ED Entered STN: 09 Jun 2005  
 AB A plate containing a pyrethroid with vapor pressure  $\geq 1 \times 10^{-6}$  mm Hg at 25° is  
 pasted in places where pets reside, such as kennels, to control the invasion  
 of pests; the method is useful for protecting dogs from insect attacks. The  
 pyrethroid may be metofluthrin or transfluthrin.  
 IT 118712-89-3, Transfluthrin 240494-70-6, Metofluthrin  
 (plates containing pyrethroids for controlling pests in kennels)  
 RN 118712-89-3 HCAPLUS



10/783,072

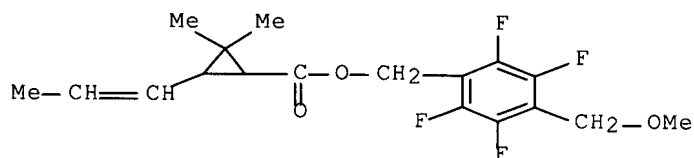
CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-,  
(2,3,5,6-tetrafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 240494-70-6 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
NAME)



IC ICM A01N025-18

ICS A01M029-00; A01N053-06

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38

IT 118712-89-3, Transfluthrin 240494-70-6, Metofluthrin  
(plates containing pyrethroids for controlling pests in kennels)

L21 ANSWER 9 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:428215 HCAPLUS Full-text

DOCUMENT NUMBER: 142:458585

TITLE: Air-freshening and insect-repelling products  
having detachable pyrethroid-impregnated materials

INVENTOR(S): Katsuta, Sumio; Kanzaki, Tsutomu

PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

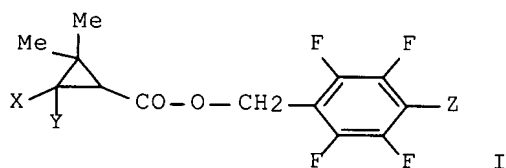
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005126393	A	20050519	JP 2003-366116	20031027
PRIORITY APPLN. INFO.:			JP 2003-366116	20031027

OTHER SOURCE(S): MARPAT 142:458585

ED Entered STN: 20 May 2005

GI



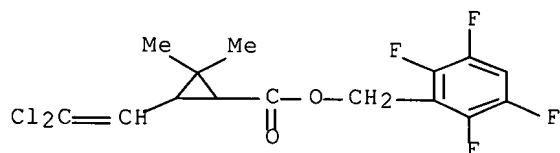
AB The products have (a) an air freshener unit and (b) a detachable insect repellents which are prepared by impregnating supports, e.g. cellulose beads, sheets, or honeycomb structures, etc., with  $\geq 1$  ordinary temperature-evaporating repellents selected from empenethrin, tefurametrin, and fluorobenzyl cyclopropanecarboxylates I (X = H, Me; if X = H, then Y = CH:CH<sub>2</sub>, 1-propenyl, 2-methyl-1-propenyl, 2,2-dichlorovinyl, 2,2-difluorovinyl, 2-chloro-2-trifluoromethylvinyl; if X = Me, then Y = Me; Z = H, F, Me, CH<sub>2</sub>OMe, propargyl) are optionally packed in a gas-permeable material. The air freshener unit preferably has artificial flowers for use as ornaments. In seasons when no insect-repellent function is needed, the detachable insect repellents are removed from the air freshener.

IT 67640-15-7 155749-79-4 223419-20-3  
240494-68-2 240494-70-6

(air fresheners having detachable insect repellents prepared by impregnating porous supports with pyrethroids and optionally packing in gas-permeable materials)

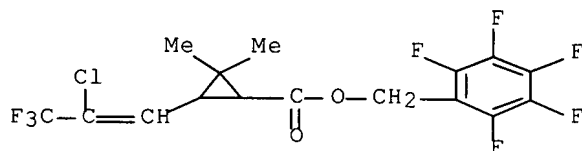
RN 67640-15-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



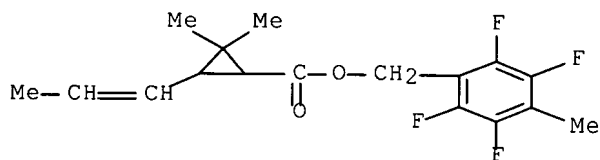
RN 155749-79-4 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2-chloro-3,3,3-trifluoro-1-propen-1-yl)-2,2-dimethyl-, (2,3,4,5,6-pentafluorophenyl)methyl ester (CA INDEX NAME)



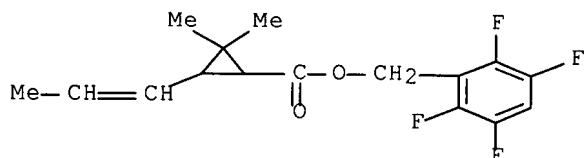
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
(2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



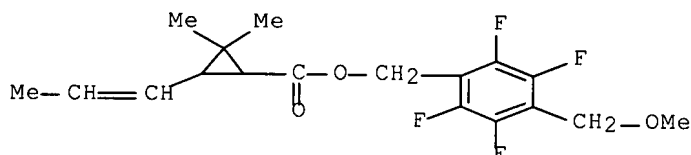
RN 240494-68-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
(2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



RN 240494-70-6 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
NAME)



IC ICM A01N053-02

ICS A01N053-04; A01N053-06; A61L009-01; A61L009-04; A61L009-12

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38, 62

IT 24154-96-9, Tefurametrin 54406-48-3, Empenthrin 67640-15-7

155749-79-4 223419-20-3 240494-68-2

240494-70-6 851465-50-4

(air fresheners having detachable insect repellents prepared by  
impregnating porous supports with pyrethroids and optionally  
packing in gas-permeable materials)

L21 ANSWER 10 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:319745 HCAPLUS Full-text

DOCUMENT NUMBER: 142:350568

TITLE: Container for mothproofing agents

INVENTOR(S): Matsumoto, Masuo; Minamide, Yoshihiro

PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005095023	A	20050414	JP 2003-330433	20030922
PRIORITY APPLN. INFO.:			JP 2003-330433	20030922

ED Entered STN: 14 Apr 2005

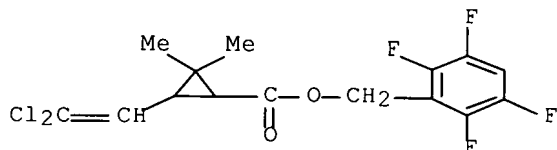
AB The container for directly packaging mothproofing agents containing insecticide components which are volatile at ambient temperature, comprises an openable lid and a body, which are formed from plastics that do not adsorb chems. or from laminates having plastic films that do not adsorb chems. at the inner surfaces. A pulp mat was impregnated with a liquid comprising 100 mg empenethrin and 15 mg paraffin and placed in a PET case having a hole to give a mothproofing agent, which was packaged in a container comprising a PET lid and a PET body. No loss of empenethrin was observed after 1-yr storage of the mothproofing agent in the container.

IT 67640-15-7 223419-20-3 358750-43-3

(nonadsorbing plastic container for packaging of mothproofing agents containing volatile insecticides)

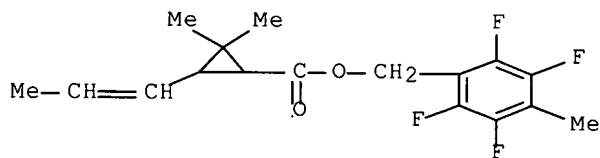
RN 67640-15-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



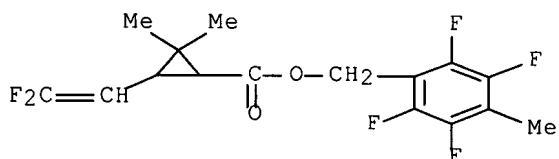
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



RN 358750-43-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-difluoroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



IC ICM A01M001-20  
ICS A01N025-10; A01N025-18  
CC 5-4 (Agrochemical Bioregulators)  
Section cross-reference(s): 38, 40  
IT 499-44-5, Hinokitiol 54406-48-3, Empenthrin 67640-15-7  
223419-20-3 358750-43-3  
(nonadsorbing plastic container for packaging of mothproofing agents containing volatile insecticides)

L21 ANSWER 11 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:54979 HCAPLUS Full-text

DOCUMENT NUMBER: 142:129078

TITLE: Volatile insect control sheets and their manufacture with pyrethroids

INVENTOR(S): Munagavalasa, Murthy S.; Skalitzky, Michael J.; Meier, Maude C.; Sosa, Anthony

PATENT ASSIGNEE(S): S. C. Johnson & Son, Inc., USA

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005004597	A1	20050120	WO 2004-US21117	20040630
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004255236	A1	20050120	AU 2004-255236	20040630
EP 1526770	A1	20050504	EP 2004-756489	20040630
EP 1526770	B1	20060927		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1816278	A	20060809	CN 2004-80018606	20040630
BR 2004012012	A	20060815	BR 2004-12012	20040630
AT 340501	T	20061015	AT 2004-756489	20040630
PRIORITY APPLN. INFO.:			US 2003-610057	A 20030630

WO 2004-US21117 W 20040630

ED Entered STN: 20 Jan 2005

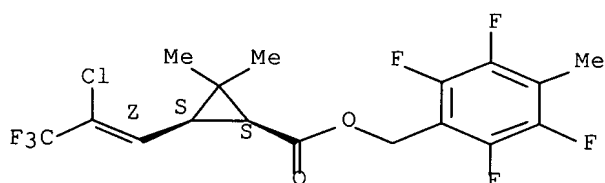
AB An insect control device includes a substantially impermeable surface with a critical surface tension value; a volatile insect control agent, with a surface energy at least .apprx.5 dynes/cm<sup>2</sup> less than critical surface tension, is disposed on the surface. A second surface may be applied to the first surface to give, e.g., opposed faces of a folded sheet. The insect control agent comprises transfluthrin, tefluthrin, or vaporthrin. Thus, sheets were coated with an insect control agent consisting of transfluthrin and dipropylene glycol di-Me ether. When the sheets were placed in a testing room with cages containing *Culex quinquefasciatus* mosquitoes, a mean knockdown of 51% was achieved 2 h after placement in the room.

IT 79538-32-2, Tefluthrin 118712-89-3, Transfluthrin  
(volatile insect control sheets containing pyrethroids and their manufacture)

RN 79538-32-2 .HCAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propen-1-yl]-2,2-dimethyl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)-rel- (CA INDEX NAME)

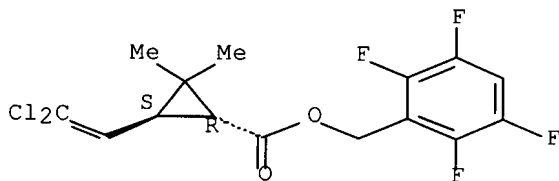
Relative stereochemistry.  
Double bond geometry as shown.



RN 118712-89-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



IC ICM A01M001-20

ICS A01N025-34

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38, 57

IT 54406-48-3, Vaporthrin 79538-32-2, Tefluthrin

118712-89-3, Transfluthrin

(volatile insect control sheets containing pyrethroids and their manufacture)

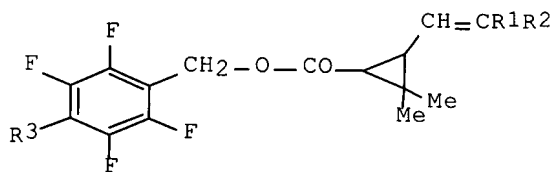
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE

RE FORMAT

L21 ANSWER 12 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:1058359 HCAPLUS Full-text  
 DOCUMENT NUMBER: 142:34052  
 TITLE: Insecticidal gels containing  
 cyclopropanecarboxylates  
 INVENTOR(S): Makita, Mitsuyasu; Iwasaki, Tomonori  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ---	DATE -----	APPLICATION NO. -----	DATE -----
JP 2004346010	A	20041209	JP 2003-144745	20030522
PRIORITY APPLN. INFO.:			JP 2003-144745	20030522

OTHER SOURCE(S): MARPAT 142:34052  
 ED Entered STN: 10 Dec 2004  
 GI



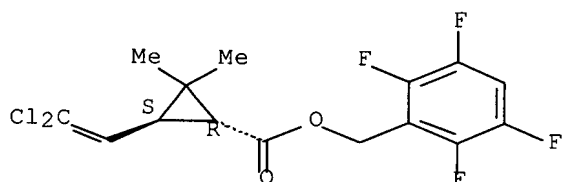
AB Compns. useful as long-lasting fumigants contain an insecticide (I; R1, R2 = independently H, Me, Cl; R3 = H, F, Me, MeO, CH2OMe) in a gel formed from a thermoplastic elastomer and hydrocarbon solvent. Thus, IP Solvent 2835, Kraton G1651, 2,3,5,6-tetrafluoro-4- methoxymethylbenzyl 1R-trans-3-[1-propenyl(Z/E = 8/1)]-2,2- dimethylcyclopropanecarboxylate, 2,6-di-tert-butyl-4-methylphenol, and 2-[1-(2-hydroxy-3,5-di-tert-pentylphenyl)ethyl]-4,6-di-tert- pentylphenyl acrylate were mixed, agitated for 3 h at room temperature, then agitated for 1 h at 130-140°. The blend was inserted into an aluminum container and cooled to obtain a gel that, when continuously heated at .apprx.140°, gave complete knockdown of Culex pipiens pallens both after 1 and 301 h.

IT 118712-89-3 240494-71-7  
 (insecticidal cyclopropanecarboxylates in gels formed with thermoplastic elastomers and hydrocarbon solvents for prolonged fumigation)

RN 118712-89-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

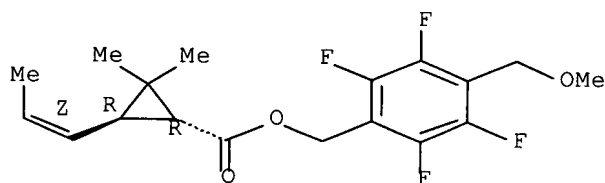
Absolute stereochemistry.



RN 240494-71-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(12)-1-propen-1-yl-,  
[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester, (1R,3R)-  
(CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



IC ICM A01N053-06

ICS A01N025-04; A01N025-10; A01N025-18

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38

IT 118712-89-3 240494-71-7

(insecticidal cyclopropanecarboxylates in gels formed with  
thermoplastic elastomers and hydrocarbon solvents for prolonged  
fumigation)

L21 ANSWER 13 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:836479 HCAPLUS Full-text

DOCUMENT NUMBER: 141:327133

TITLE: Multilayer barriers containing insecticides for  
protecting wooden structures

INVENTOR(S): Van Voris, Peter; Cataldo, Dominic A.; Burton,  
Frederick G.

PATENT ASSIGNEE(S): Battelle Memorial Institute, USA

SOURCE: U.S., 21 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6803051	B1	20041012	US 1999-353494	19990713
US 2002192259	A1	20021219	US 2001-5804	20011203
US 2004247636	A1	20041209	US 2004-884297	20040702
US 2004247637	A1	20041209	US 2004-889706	20040713
PRIORITY APPLN. INFO.:			US 1998-30690	A1 19980225



US 1999-353494 A2 19990713

US 2000-251112P P 20001203

US 2000-251141P P 20001204

ED Entered STN: 13 Oct 2004

AB For the long-term protection of wooden structures, intrusion of boring insects is prevented by using a multilayer barrier comprising a first layer which consists of a first polymer, a liquid pesticide, and a carrier and a second, adjacent layer of a second polymer such that the pesticide is released from the barrier at a rate of  $<0.4 \mu\text{g}/\text{cm}^2/\text{day}$ . The first polymer may be selected from the group consisting of polyurethane, high-d. polyethylene, polypropylene, etc. Among the pesticides that may be used are permethrin and lambda-cyhalothrin, and the carrier may be carbon black.

IT 79538-32-2, Tefluthrin

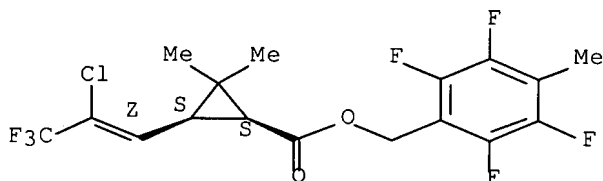
(multilayer polymer barriers containing insecticides for protecting wooden structures)

RN 79538-32-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propen-1-yl]-2,2-dimethyl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



IC ICM A01N025-32

ICS A01N053-06

INCL 424406000; 424403000; 424405000; 424407000; 424408000; 424409000;  
424411000; 424412000; 424413000; 424419000

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38

IT 121-21-1, Pyrethrin I 2921-88-2, Chlorpyrifos 25311-71-1,  
Isofenphos 51630-58-1, Fenvalerate 52315-07-8, Cypermethrin  
52645-53-1, Permethrin 52918-63-5, Deltamethrin 68359-37-5,  
Cyfluthrin 79538-32-2, Tefluthrin 91465-08-6

(multilayer polymer barriers containing insecticides for protecting wooden structures)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L21 ANSWER 14 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:756169 HCAPLUS Full-text

DOCUMENT NUMBER: 141:255897

TITLE: Volatile pyrethroid insecticides in ethylene-vinyl  
alcohol copolymer holder

INVENTOR(S): Okada, Masaya; Matsunaga, Tadakatsu

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004254599	A	20040916	JP 2003-48949	20030226
PRIORITY APPLN. INFO.:			JP 2003-48949	20030226

OTHER SOURCE(S): MARPAT 141:255897

ED Entered STN: 16 Sep 2004

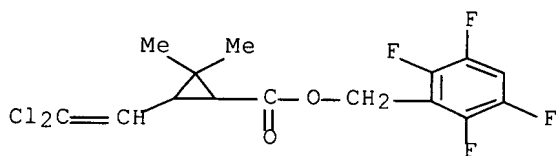
AB Mothproofing agents, useful for closets, chests of drawers, etc., contain volatile pyrethroids supported on ethylene-vinyl alc. copolymer. Thus, a nonwoven fabric impregnated with 2,3,5,6-tetrafluoro-4-methylbenzyl 1R-trans-3-(1-propenyl)-2,2-dimethylcyclopropanecarboxylate was placed in a case made of EVOH. The active ingredient was not absorbed by the resin of the holder.

IT 67640-15-7 223419-20-3 240494-69-3  
 240494-70-6 409098-90-4

(volatile pyrethroid insecticides in ethylene-vinyl alc. copolymer holder as mothproofing comps.)

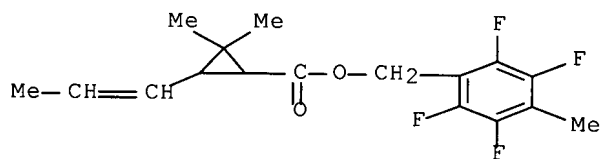
RN 67640-15-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



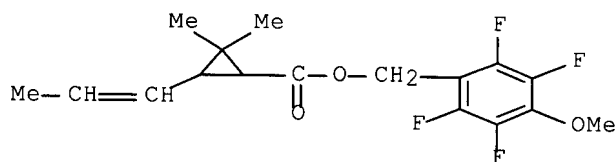
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



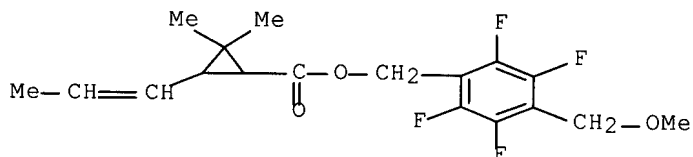
RN 240494-69-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-, (2,3,5,6-tetrafluoro-4-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)



RN 240494-70-6 HCAPLUS

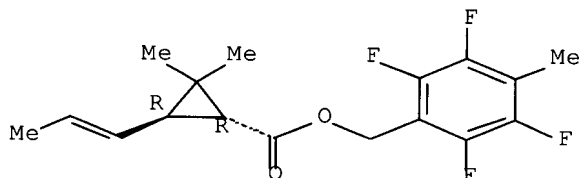
CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX NAME)



RN 409098-90-4 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



IC ICM A01M001-20

ICS A01N025-10; A01N025-18; A01N053-06

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38

IT 67640-15-7 223419-20-3 240494-69-3

240494-70-6 409098-90-4

(volatile pyrethroid insecticides in ethylene-vinyl alc. copolymer holder as mothproofing compns.)

L21 ANSWER 15 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:753268 HCAPLUS Full-text

DOCUMENT NUMBER: 141:238228

TITLE: Polyethylene naphthalate resin as porous holder of volatile pyrethroid compound

INVENTOR(S): Okada, Masaya; Matsunaga, Tadakatsu

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

DOCUMENT TYPE: CODEN: JKXXAF  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1 Japanese  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004254598	A	20040916	JP 2003-48948	20030226
PRIORITY APPLN. INFO.:			JP 2003-48948	20030226

OTHER SOURCE(S): MARPAT 141:238228

ED Entered STN: 16 Sep 2004

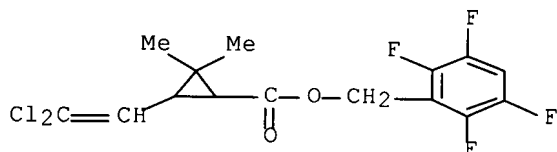
AB The porous holder is manufactured with ethylene glycol-naphthalene-2,6-dicarboxylic acid copolymer. Insecticide that may be placed in the holder is selected from the group consisting of pyrethroid compds., 2,3,5,6-tetrafluoro-4-methylbenzyl 3-(1-propenyl)-2,2-dimethyl- cyclopropanecarboxylate, 2,3,5,6-tetrafluoro-4-methoxy-methylbenzyl 3-(1-propenyl)-2,2-dimethyl- cyclopropanecarboxylate, 2,3,5,6-tetrafluoro-4-methoxy-benzyl 3-(1-propenyl)-2,2-dimethyl- cyclopropanecarboxylate, and 2,3,5,6-tetra-fluorobenzyl 3-(2,2-dichlorovinyl)-2,2-dimethyl-cyclopropanecarboxylate. This container may be kept in the place like closet for controlling harmful insects.

IT 67640-15-7 223419-20-3 240494-69-3  
 240494-70-6

(container made of polyethylene naphthalate resin for insecticide)

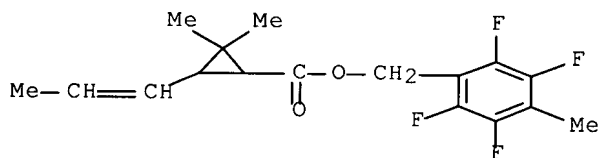
RN 67640-15-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-,  
 (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



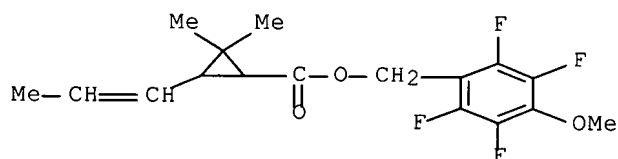
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)

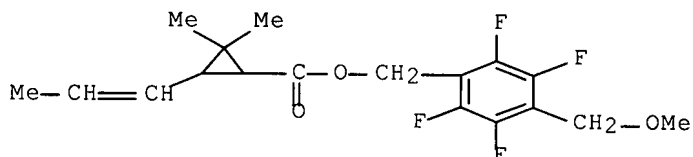


RN 240494-69-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-,  
 (2,3,5,6-tetrafluoro-4-methoxyphenyl)methyl ester (9CI) (CA INDEX  
 NAME)



RN 240494-70-6 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
 NAME)

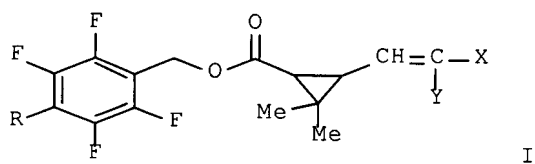


IC ICM A01M001-20  
 ICS A01N025-10; A01N025-18; A01N053-06  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 38  
 IT 67640-15-7 223419-20-3 240494-69-3  
 240494-70-6  
 (container made of polyethylene naphthalate resin for insecticide)

L21 ANSWER 16 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2004:489683 HCAPLUS Full-text  
 DOCUMENT NUMBER: 141:19181  
 TITLE: Pyrethroid analog-containing mothproofing  
 compositions housed in polyolefin cases, and  
 mothproofing using them  
 INVENTOR(S): Okada, Masaya; Matsunaga, Tadakatsu  
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan; Mishima Paper  
 Co., Ltd.; Osaka Seiyaku Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004168671	A	20040617	JP 2002-333222	20021118
PRIORITY APPLN. INFO.:			JP 2002-333222	20021118

OTHER SOURCE(S): MARPAT 141:19181  
 ED Entered STN: 17 Jun 2004  
 GI



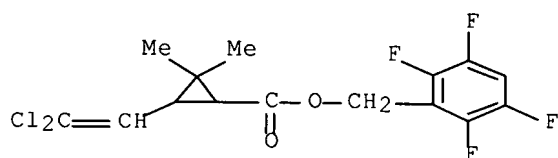
AB Title compns. contain (1:0.5)-(1:10) (by weight) fluorobenzyl esters I (R = H, Me, MeO, MeOCH<sub>2</sub>; X, Y = Cl, H, Me) and tri-Et citrate (II). Thus, a nonwoven fabric impregnated with 1:4 mixture of I (R = X = Me, Y = H) and II was housed in polypropylene case to show 90% mothproofing effect, vs. 40% without II.

IT 67640-15-7 223419-20-3 240494-69-3  
240494-70-6

(mothproofing compns. containing pyrethroid analogs and tri-Et citrate housed in polyolefin cases)

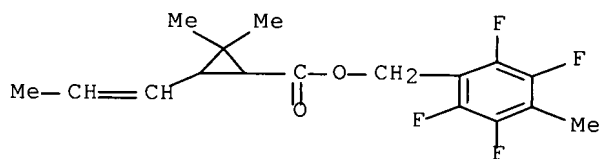
RN 67640-15-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



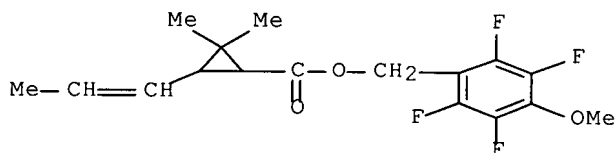
RN 223419-20-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)

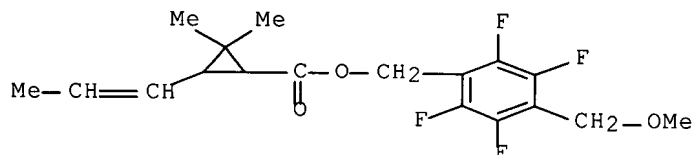


RN 240494-69-3 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propenyl)-, (2,3,5,6-tetrafluoro-4-methoxyphenyl)methyl ester (9CI) (CA INDEX NAME)



RN 240494-70-6 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
 NAME)



IC ICM A01N053-06  
 ICS A01N025-02; A01N025-18; A01N037-04  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 38, 40  
 IT 77-93-0, Triethyl citrate 67640-15-7 223419-20-3  
 240494-69-3 240494-70-6  
 (mothproofing compns. containing pyrethroid analogs and tri-Et citrate  
 housed in polyolefin cases)

L21 ANSWER 17 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:693409 HCAPLUS Full-text

DOCUMENT NUMBER: 139:209287

TITLE: Plastic cases with low calorie required for  
 incineration, and insecticidal and mothproofing  
 agents using them

INVENTOR(S): Hayami, Tomoko; Takekawa, Hisashi

PATENT ASSIGNEE(S): Kyoei Kasei K. K., Japan; Dainippon Jochugiku Co.,  
 Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003246866	A	20030905	JP 2002-235066	20020812
JP 3906409	B2	20070418		
PRIORITY APPLN. INFO.:			JP 2001-390266	A 20011221

ED Entered STN: 05 Sep 2003

AB The plastic cases contain 10-60 weight% (based on resins) inorg. substances  
 (particle size 0.2-5 µm) selected from CaCO<sub>3</sub>, MgCO<sub>3</sub>, talc, kaolin, clay, and  
 TiO<sub>2</sub> and require ≤5000 kcal/kg for incineration. Carriers containing ambient-  
 temperature-volatile pyrethroids are placed in the plastic cases to give  
 insecticidal and mothproofing agents. Paper made from pulp was impregnated  
 with a liquid containing 300 mg empenethrin and 50 mg paraffin solvent and  
 placed in a plastic case (containing 80 weight% recycled PET and 20 weight%  
 CaCO<sub>3</sub>; incineration calorie 3800 kcal/kg) having mesh holes to give an

10/783,072

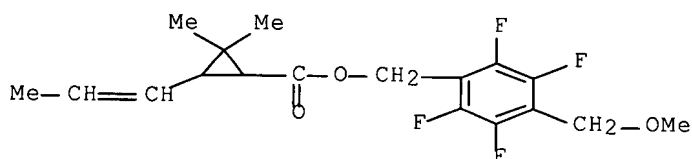
insecticidal and mothproofing agent, which prevented feeding damage of clothes for 1 yr and could be treated as a combustible waste after use.

IT 240494-70-6

(plastic cases with low calorie required for incineration for insecticidal and mothproofing agents)

RN 240494-70-6 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-, [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX NAME)



IC ICM C08J005-00

ICS A01N053-02; C08K003-26; C08K003-34; C08L067-02; C08L101-00

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38, 60

IT 54406-48-3, Empenthrin 240494-70-6

(plastic cases with low calorie required for incineration for insecticidal and mothproofing agents)

L21 ANSWER 18 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:644179 HCAPLUS Full-text

DOCUMENT NUMBER: 139:161075

TITLE: Pyrethroid mothproofing agent packed in gas-permeable plastic laminated paper case

INVENTOR(S): Hayami, Tomoko; Takekawa, Hisashi

PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003230347	A	20030819	JP 2002-29363	20020206
PRIORITY APPLN. INFO.:			JP 2002-29363	20020206

ED Entered STN: 19 Aug 2003

AB The mothproofing agent comprises a paper case, which is laminated with a volatile substance-impermeable plastic layer on one of both sides and is made gas-permeable by forming holes, and a support containing cold-volatile pyrethroids received by the case. The plastic layer prevents adsorption and permeation of the drugs, thus enabling sustained-release of the drugs. A pulp sheet impregnated with a mixture of empenthrin (I) and paraffin solvent was packed in a perforated case made of a poly(butylene terephthalate)-laminated paper. The mothproofing agent was used in a wardrobe for 12 h to release 95% I.

IT 240494-68-2 271241-14-6

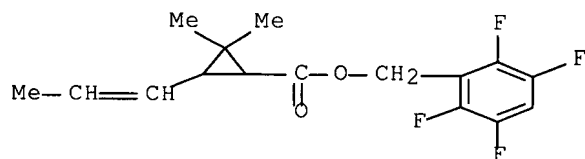
(pyrethroid mothproofing agent packed in gas-impermeable plastic-laminated paper case having releasing hole)



10/783,072

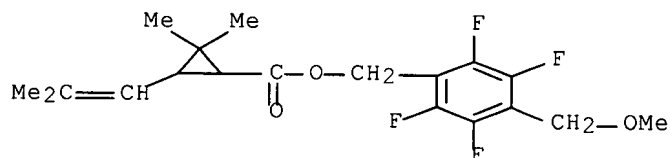
RN 240494-68-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
(2,3,5,6-tetrafluorophenyl)methyl ester (CA INDEX NAME)



RN 271241-14-6 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propen-1-yl)-,  
[2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester (CA INDEX  
NAME)



IC ICM A01M001-20

ICS A01N025-18; A01N053-02; A01N053-06

CC 5-4 (Agrochemical Bioregulators)

Section cross-reference(s): 38, 40, 43

IT 9016-80-2, Poly(methylpentene) 54406-48-3, Empenthrin

240494-68-2 271241-14-6

(pyrethroid mothproofing agent packed in gas-impermeable  
plastic-laminated paper case having releasing hole)

L21 ANSWER 19 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:432776 HCAPLUS Full-text

DOCUMENT NUMBER: 139:2390

TITLE: Carriers for retention of volatile components

INVENTOR(S): Iwasaki, Tomonori; Okada, Masaya

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003160778	A	20030606	JP 2001-358984	20011126
JP 2007023052	A	20070201	JP 2006-262134	20060927
PRIORITY APPLN. INFO.:			JP 2001-358984	A3 20011126

ED Entered STN: 06 Jun 2003

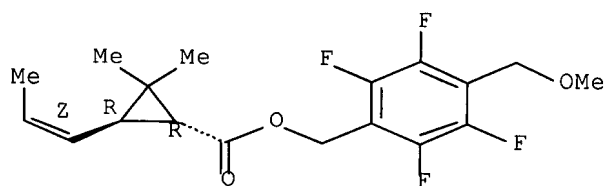
AB The carriers for retention of volatile components (e.g., insecticides) have honeycomb structures, in which square pillar frames are arranged so that each frame is attached to the adjacent frame at the side wall surface. An Me<sub>2</sub>CO solution containing 2,3,5,6-tetrafluoro-4-methoxymethylbenzyl 1R-trans-3-[1-propenyl(E/Z = 1/8)]-2,2-dimethylcyclopropanecarboxylate was applied on a honeycomb carrier and dried. *Culex pipiens pallens* was 100% controlled by blowing air into the carrier.

IT 240494-71-7  
(honeycomb carriers for retention of volatile components and their efficient release by air-blowing)

RN 240494-71-7 HCAPLUS

CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1Z)-1-propen-1-yl-, [2,3,5,6-tetrafluoro-4-(methoxymethyl)phenyl]methyl ester, (1R,3R)- (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



IC ICM C09K003-00  
ICS A01N025-18; A01N053-06; A61L009-12

CC 5-4 (Agrochemical Bioregulators)  
Section cross-reference(s): 38, 40

IT 240494-71-7  
(honeycomb carriers for retention of volatile components and their efficient release by air-blowing)

L21 ANSWER 20 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:214649 HCAPLUS Full-text

DOCUMENT NUMBER: 138:216851

TITLE: Long-acting insecticidal heat fumigation mat having pulp or plastic plate partially covering the bottom of the mat and fumigation method

INVENTOR(S): Manamide, Yoshihiro; Katsuda, Sumio

PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003081708	A	20030319	JP 2001-261151	20010830
PRIORITY APPLN. INFO.:			JP 2001-201390	A 20010702

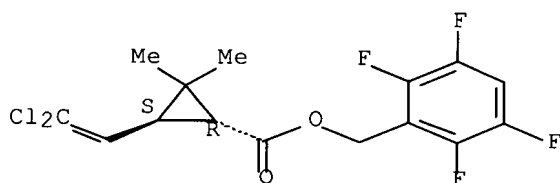
ED Entered STN: 19 Mar 2003

AB The insecticidal pulp mat (length 20-24 mm, width 32-38 mm, and thickness 2.0-3.0 mm), which is applied to a conventional elec. fumigation apparatus to show

the insecticidal effect continuously over 5 days, has a pulp or plastic plate which has length roughly the same as that of the mat and width of 0.3-0.6 times that of the mat and shows thermal conductivity  $\leq 0.30 \text{ Wm}^{-1}\text{K}^{-1}$  at 300 K and is fixed to the mat at the short side with a clip, and contains (a)  $\geq 50 \text{ mg}$  pyrethroid insecticide showing vapor pressure  $\geq 4.0 + 10^{-6} \text{ mmHg}$  at  $20^\circ$  and (b) volatilization controller at its weight ratio to the pyrethroid  $\geq 0.3$ . Partially laminating the mat with the pulp or plastic plate substantially narrows surface area of a heating plate of the fumigation apparatus and prolongs volatilization period. A bakelite plate (22 mm + 17.5 mm + 2.2 mm, thermal conductivity  $0.18 \text{ Wm}^{-1}\text{K}^{-1}$  at 300 K) was fixed on a pulp mat (22 mm + 35 mm + 2.8 mm) with a clip and the mat was impregnated with kerosene containing Pynamin D-forte 250, piperonyl butoxide 150, stabilizer 20 mg, and blue dye to give an insecticidal mat. The mat was placed on an elec. fumigation apparatus heated at  $180^\circ$  to show sufficient insecticidal action on *Culex tritaeniorhynchus* for 5 days.

- IT 118712-89-3, Transfluthrin  
 (long-acting rectangular insecticidal elec. heat fumigation mat partially laminated with pulp or plastic plate to prolong volatilization period)
- RN 118712-89-3 HCAPLUS
- CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



- IC ICM A01N025-34  
 ICS A01M001-20; A01N025-18; A01N053-02; A01N053-04
- CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 38
- IT 584-79-2, Esbiothrin 23031-36-9, Prallethrin 23031-38-1, Pynamin D-forte 118712-89-3, Transfluthrin  
 (long-acting rectangular insecticidal elec. heat fumigation mat partially laminated with pulp or plastic plate to prolong volatilization period)

L21 ANSWER 21 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:964247 HCAPLUS Full-text

DOCUMENT NUMBER: 138:39741

TITLE: Use of reactive polymeric surfactants in the formation of emulsions

INVENTOR(S): Heming, Alexander Mark; Mulqueen, Patrick Joseph; Scher, Herbert Benson; Shirley, Ian Malcolm

PATENT ASSIGNEE(S): Syngenta Limited, UK

SOURCE: PCT Int. Appl., 60 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002100525	A2	20021219	WO 2002-GB2744	20020610
WO 2002100525	A3	20030731		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2447759	A1	20021219	CA 2002-2447759	20020610
AU 2002314315	A1	20021223	AU 2002-314315	20020610
NZ 529669	A	20031219	NZ 2002-529669	20020610
EP 1401562	A2	20040331	EP 2002-740885	20020610
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002010302	A	20040713	BR 2002-10302	20020610
CN 1541136	A	20041027	CN 2002-815689	20020610
JP 2004537610	T	20041216	JP 2003-503338	20020610
ZA 2003009057	A	20040917	ZA 2003-9057	20031120
IN 2003MN01063	A	20050429	IN 2003-MN1063	20031120
US 2004197357	A1	20041007	US 2004-480405	20040527
US 7199185	B2	20070403		
PRIORITY APPLN. INFO.:			GB 2001-14197	A 20010611
			WO 2002-GB2744	W 20020610

ED Entered STN: 20 Dec 2002

AB The emulsions comprise a liquid continuous phase, a liquid discontinuous phase, and a polymer surfactant having hydrophilic and hydrophobic components as stabilizer; upon interfacial polymerization, microcapsules are formed that contain an active agent, e.g., agrochem. active agents. The monomers are selected from vinyl, (meth)acrylates, alkylene glycols, and contain reactive groups, e.g., sulfonate, carboxy, carboxybetaine, quaternary ammonium, epoxide, carbodiimide, aziridine, etc. The surfactants are random graft polymers or block copolymers in which the hydrophobic unit includes a hydrophilic crosslinking unit which reacts with a wall forming ingredient in a microencapsulation process, or an ingredient in the disperse phase of an emulsion. A reactive polymer surfactant was prepared by ATRP [atom transfer radical polymerization] of Me methacrylate, 2-hydroxyethyl methacrylate, 2-(trimethylammonium)ethyl methacrylate iodide, and mono-methoxy-poly(ethylene glycol)-mono methacrylate using ethyl-2-bromoisobutyrate as initiator, CuCl catalyst and N-propyl-2-pyridylmethanimine catalyst ligand, at 25-90° for 3-24 h.

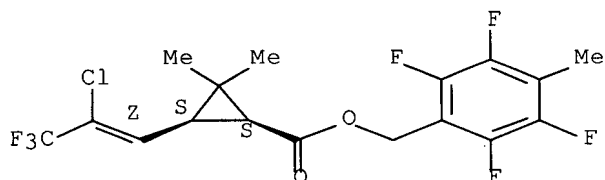
IT 79538-32-2, Tefluthrin  
(dispersed internal phase; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

RN 79538-32-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propen-1-yl]-2,2-dimethyl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



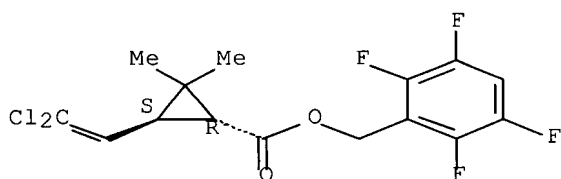
IC ICM B01F017-00  
 CC 35-8 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 5, 46  
 IT 79538-32-2, Tefluthrin  
 (dispersed internal phase; preparation of reactive polymeric surfactant emulsifier encapsulants for agrochem. agents)

L21 ANSWER 22 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:837842 HCAPLUS Full-text  
 DOCUMENT NUMBER: 137:321574  
 TITLE: Mothproofing cover for clothing  
 INVENTOR(S): Takekawa, Hisashi; Morinaga, Akihiko  
 PATENT ASSIGNEE(S): Dainippon Jochugiku Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

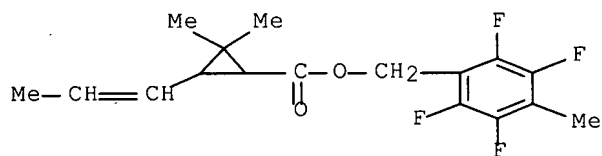
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002320544	A	20021105	JP 2001-126914	20010425
PRIORITY APPLN. INFO.:			JP 2001-126914	20010425

ED Entered STN: 05 Nov 2002  
 AB The cover has a bag shape with an open part at the top and an openable sealing means. The sealing means can be opened for covering of clothing which is hung on a hanger, without taking the hanger off a hanger bar. Preferably, the cover comprises a front sheet of plastics and a back sheet of a nonwoven fabric containing volatile pyrethroids and nonvolatile insecticides. A clothing cover made from a polypropylene front sheet and a polypropylene nonwoven fabric back sheet containing empenethrin and silafluofen at 300 and 200 mg/m<sup>2</sup>, resp., exhibited mothproofing effect for ≥1 yr.  
 IT 118712-89-3, Transfluthrin 223419-20-3  
 (mothproofing covers for clothing)  
 RN 118712-89-3 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,5,6-tetrafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 223419-20-3 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(1-propen-1-yl)-,  
 (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester (CA INDEX NAME)



IC ICM A47G025-58  
 ICS A01N053-02; A01N055-00; D04H001-40  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 38, 40  
 IT 39515-40-7, Cyphenothrin 54406-48-3, Empenthrin 80844-07-1,  
 Etofenprox 105024-66-6, Silafluofen 108701-88-8  
 118712-89-3, Transfluthrin 223419-20-3  
 (mothproofing covers for clothing)

L21 ANSWER 23 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:449429 HCAPLUS Full-text  
 DOCUMENT NUMBER: 137:29425  
 TITLE: Microemulsifiable hydrophobic agrochemical  
 compositions containing polymers  
 INVENTOR(S): Fowler, Jeffrey Bruce  
 PATENT ASSIGNEE(S): Syngenta Participations Ag, Switz.; Douglass,  
 Andrew  
 SOURCE: PCT Int. Appl., 33 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002045507	A2	20020613	WO 2001-EP14121	20011203
WO 2002045507	A3	20021212		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2436834	A1	20020613	CA 2001-2436834	20011203
AU 200216067	A	20020618	AU 2002-16067	20011203
BR 2001015918	A	20030916	BR 2001-15918	20011203
EP 1347681	A2	20031001	EP 2001-999284	20011203
EP 1347681	B1	20060222		

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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2004523491	T	20040805	JP 2002-547307	20011203
AT 318077	T	20060315	AT 2001-999284	20011203
ES 2258570	T3	20060901	ES 2001-1999284	20011203
ZA 2003004196	A	20040830	ZA 2003-4196	20030529
US 2005043182	A1	20050224	US 2003-432458	20031110
HK 1061775	A1	20070413	HK 2004-104844	20040706
PRIORITY APPLN. INFO.:			US 2000-251189P	P 20001204
			WO 2001-EP14121	W 20011203

ED Entered STN: 14 Jun 2002

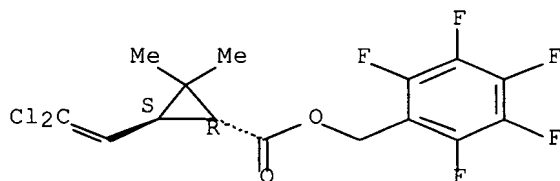
AB The compns. are provided which are a combination of (A) an alkyl alkanoate with (B) a polyhydric alc., a polyhydric alc. condensate or a mixture thereof and (C) at least one surfactant; the novel compns. are storage stable, easy to apply, ecol. and toxicol. favorable and, upon dilution with water, are useful as plant treatment compns. that have good biol. efficacy in the target application.

IT 75867-00-4, Fenfluthrin 79538-32-2, Tefluthrin  
(in micro-emulsifiable hydrophobic agrochem. compns.)

RN 75867-00-4 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (2,3,4,5,6-pentafluorophenyl)methyl ester, (1R,3S)- (CA INDEX NAME)

Absolute stereochemistry.

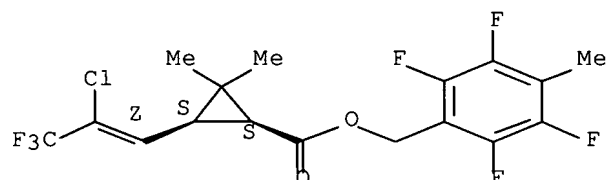


RN 79538-32-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propen-1-yl]-2,2-dimethyl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.



IC ICM A01N025-02

ICS A01N025-30; A01N025-04

CC 5-1 (Agrochemical Bioregulators)

Section cross-reference(s): 38

IT 52-85-7, Famphur 56-38-2, Parathion 56-41-7D, Alanine, acyl  
 derivs. 56-81-5, Glycerol, biological studies 57-55-6, Propylene  
 glycol, biological studies 60-35-5D, Acetamide, N,N-di-(C1-4-alkyl)  
 derivs. 60-51-5, Dimethoate 62-73-7, Dichlorvos 64-17-5,  
 Ethanol, biological studies 67-56-1D, Methanol, C3-8-cycloalkyl  
 derivs. 67-68-5, Dimethylsulfoxide, biological studies 68-12-2,  
 biological studies 75-12-7D, Formamide, N,N-di-(C1-4-alkyl) derivs.  
 76-93-7D, Benzoic acid, esters 77-99-6D, Trimethylolpropane,  
 polyoxy C2-6 alkylene derivs. 86-50-0, Azinphos methyl 94-96-2,  
 2-Ethyl-1,3-hexanediol 96-48-0,  $\gamma$ -Butyrolactone 97-99-4  
 98-11-3D, Benzenesulfonic acid, C10-13-alkyl derivs., salts  
 101-84-8D, Diphenyl ether, derivs. 102-76-1, Glycerol triacetate  
 103-84-4D, Acetanilide, halo derivs. 106-69-4, 1,2,6-Hexanetriol  
 107-41-5 107-88-0, 1,3-Butylene glycol 111-46-6, Diethylene  
 glycol, biological studies 115-29-7, Endosulfan 121-29-9,  
 Pyrethrin 121-75-5, Malathion 127-19-5 143-07-7D, Lauric acid,  
 esters 148-79-8, Thiabendazole 298-04-4, Disulfoton 300-76-5,  
 Naled 301-12-2, Oxydemeton methyl 309-00-2, Aldrin 327-98-0,  
 Trichloronate 333-41-5, Diazinon 463-52-5D, Formamidine, derivs.  
 470-90-6, Chlorfenvinphos 510-15-6, Chlorbenzylate 584-79-2,  
 Allethrin 616-45-5D, 2-Pyrrolidone, N-(C1-4-alkyl) derivs.  
 632-22-4, Tetramethylurea 834-12-8, Ametryne 872-50-4, biological  
 studies 944-22-9, Fonofos 950-10-7 950-37-8, Methidathion  
 1689-84-5, Bromoxynil 1897-45-6, Chlorothalonil 1912-24-9,  
 Atrazine 1918-00-9, Dicamba 1918-16-7, Propachlor 2312-35-8,  
 Propargite 2540-82-1, Formothion 2636-26-2, Cyanophos 2642-71-9,  
 Azinphos ethyl 2674-91-1, Oxydeprofos 2921-88-2, Chlorpyrifos  
 3740-92-9, Fenclorim 5234-68-4, Carboxin 5836-10-2,  
 Chloropropylate 7287-19-6, Prometryne 7292-16-2, Propaphos  
 7664-38-2D, Phosphoric acid, esters 7696-12-0, Tetramethrin  
 7700-17-6, Crotoxyphos 7786-34-7, Mevinphos 8065-48-3, Demeton  
 9004-81-3 9005-02-1 10311-84-9, Dialifos 10453-86-8, Resmethrin  
 13071-79-9, Terbufos 13457-18-6, Pyrazophos 13593-03-8, Quinalphos  
 14816-18-3, Phoxim 15545-48-9, Chlortoluron 15972-60-8, Alachlor  
 18181-80-1, Bromopropylate 18854-01-8, Isoxathion 22212-55-1,  
 Benzoylprop ethyl 22224-92-6, Fenamiphos 23184-66-9, Butachlor  
 23560-59-0, Heptenophos 24017-47-8, Triazophos 24151-93-7,  
 Piperophos 25265-71-8, Dipropylene glycol 25311-71-1, Isofenphos  
 25322-68-3, Peg 25322-68-3D, Peg, C12-24-acyl esters 25618-55-7D,  
 Polyglycerol, C2-6-alkyl ethers 26087-47-8, s-Benzyl-o,o-diisopropyl  
 phosphorothioate 26915-70-8 26915-70-8D, C10-15-alkyl derivs.  
 27176-87-0D, Dodecyl benzene sulfonic acid, salts 27314-13-2,  
 Norflurazon 28434-01-7, Bioresmethrin 29091-21-2, Prodiamine  
 29232-93-7, Pyrimiphos methyl 31218-83-4, Propetamphos 34256-82-1,  
 Acetochlor 34643-46-4, Prothiophos 35400-43-2, Sulprofos  
 35575-96-3, Azamethiphos 36335-67-8, Butamifos 37306-44-8D,  
 Triazole, derivs. 37764-25-3, Dichlormid 38260-54-7, Etrimfos  
 39515-41-8, Fenpropathrin 41198-08-7, Profenofos 42509-80-8,  
 Isazophos 42576-02-3, Bifenox 42873-80-3 42874-03-3, Oxyfluorfen  
 43121-43-3, Triadimefon 50563-36-5, Dimethachlor 50563-49-0  
 50594-66-6, Acifluorfen 51218-45-2, Metolachlor 51218-49-6,  
 Pretilachlor 51338-27-3, Diclof op-methyl 51630-58-1, Fenvalerate  
 52315-07-8, Cypermethrin 52645-53-1, Permethrin 52756-25-9,  
 Flamprop methyl 52918-63-5, Deltamethrin 55512-33-9, Pyridate  
 57369-32-1, Pyroquilon 57646-30-7, Furalaxyl 57837-19-1, Metalaxyl  
 60207-90-1, Propiconazole 60207-93-4, Etaconazole 60238-56-4,  
 Chlorthiophos 62924-70-3, Flumetralin 63837-33-2 63935-38-6,  
 Cycloprothrin 64249-01-0, Anilofos 65907-30-4, Furathiocarb  
 66215-27-8, Cyromazine 66230-04-4 66246-88-6, Penconazole  
 66441-23-4, Fenoxapropethyl 66841-25-6, Tralomethrin 67306-00-7,



Fenpropidin 67564-91-4, Fenpropimorph 67747-09-5, Prochloraz 68085-85-8, Cyhalothrin 68359-37-5, Cyfluthrin 69409-94-5, Fluvalinate 69806-40-2, Haloxyp-methyl 69806-50-4, Fluazifop-butyl 70124-77-5, Flucythrinate 70630-17-0, (R)-Metalaxyl 71626-11-4, Benalaxyl 71751-41-2, Abamectin 72178-02-0, Fomesafen 72490-01-8, Fenoxycarb 74738-17-3, Fenpiclonil 75867-00-4, Fenfluthrin 77501-90-7, Fluoroglycofen-ethyl 77732-09-3, Oxadixyl 79241-46-6, 79538-32-2, Tefluthrin 79622-59-6, Fluazinam 80844-07-1, Ethopphenprox 81412-43-3, Tridemorph 82657-04-3, Bifenthrin 87237-48-7, 87392-12-9, S-Metolachlor 87674-68-8, Dimethenamid 87820-88-0, Tralkoxydim 88283-41-4, Pyrifenox 88349-88-6, Cloquintocet 91465-08-6, 94361-06-5, Cyproconazole 95266-40-3, Trinexapac-ethyl 95737-68-1, Pyriproxyfen 98730-04-2, Benoxacor 98967-40-9, Flumetsulam 102851-06-9, Tau-fluvalinate 105024-66-6, Silafluofen 106392-12-5, Ethylene oxide-propylene oxide block copolymer 107713-58-6, Flufenprox 111479-05-1, Propaquizafop 111872-58-3, Brofenprox 111988-49-9, Thiacloprid 112365-69-2, 112365-70-5, 114369-43-6, Fenbuconazole 114420-56-3, Clodinafop 119446-68-3, Difenconazole 121552-61-2, Cyprodinil 123312-89-0, Pymetrozine 126572-77-8D, Strobilurine, derivs. 131341-86-1, Fludioxonil 131860-33-8, Azoxystrobin 133855-98-8, Epoxiconazole 134605-64-4, Butafenacil 135158-54-2, Acibenzolar-s-methyl 138261-41-3, Imidacloprid 139485-98-6, 141517-21-7, Trifloxystrobin 143390-89-0, Kresoxim-methyl 153719-23-4, Thiamethoxam 155569-91-8, Emetectin benzoate 436803-99-5, 436804-00-1, 436804-01-2, 436804-02-3, 436804-03-4, 436804-04-5 (in micro-emulsifiable hydrophobic agrochem. compns.)

L21 ANSWER 24 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1991:537726 HCAPLUS Full-text

DOCUMENT NUMBER: 115:137726

TITLE: Microencapsulation of phytosanitary products by interfacial polymerization

INVENTOR(S): Meinard, Colette; Taranta, Claude

PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.

SOURCE: Eur. Pat. Appl., 4 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 399911	A1	19901128	EP 1990-401382	19900523
EP 399911	B1	19930714		
R: BE, CH, DE, FR, GB, IT, LI, LU, NL				
FR 2647363	A1	19901130	FR 1989-6837	19890525
FR 2647363	B1	19940114		
JP 03047530	A	19910228	JP 1990-127064	19900518
US 5051306	A	19910924	US 1990-527111	19900521
PRIORITY APPLN. INFO.:			FR 1989-6837	A 19890525

ED Entered STN: 05 Oct 1991

AB The title method comprises the step of interfacial polymerization between (A) an organic phase containing water-insol. active materials, a polyfunctional monomer, and a solvent for the active materials, and (B) another organic phase containing a polyfunctional monomer and a catalyst. Thus, adding an organic phase containing pentafluorophenylmethyl (1R,cis) 2,2-di-Me 3-[2-fluoro-3-

methoxy-3-oxo-1-(E)propenyl]cyclopropane carboxylate 0.18, Me phthalate 18.11, and Solvesso 150 1.71 g into another phase containing 80 g H<sub>2</sub>O and 0.5 g citric acid under agitation to form an emulsion, adding 1.5 g 50% aqueous solution of Prox M 3R (melamine resin) into this emulsion, and heating the mixture at 65° for 2 h gave microcapsules with average diameter 100  $\mu$ m.

IT 79538-32-2 97872-91-8

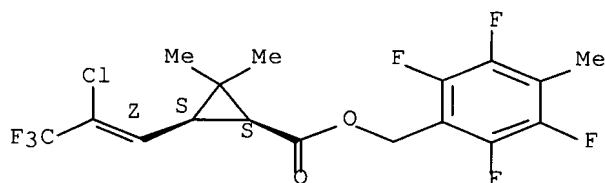
(phytosanitary products, microencapsulation of, by interfacial polymerization)

RN 79538-32-2 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propen-1-yl]-2,2-dimethyl-, (2,3,5,6-tetrafluoro-4-methylphenyl)methyl ester, (1R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.

Double bond geometry as shown.

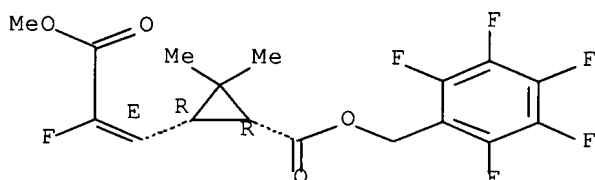


RN 97872-91-8 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1E)-2-fluoro-3-methoxy-3-oxo-1-propenyl]-2,2-dimethyl-, (pentafluorophenyl)methyl ester, (1R,3R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



IC ICM B01J013-16

ICS A01N025-28

CC 38-2 (Plastics Fabrication and Uses)

Section cross-reference(s): 63

IT 52918-63-5 79538-32-2 97872-91-8 101007-06-1

136128-70-6

(phytosanitary products, microencapsulation of, by interfacial polymerization)

L21 ANSWER 25 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:90625 HCAPLUS Full-text

DOCUMENT NUMBER: 110:90625

TITLE: Insecticide-containing acrylic resin films

INVENTOR(S): Kamada, Keiichi; Kawamoto, Seiji; Yaegashi, Makoto; Shiraishi, Shirou

PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan  
 SOURCE: Braz. Pedido PI, 80 pp.  
 CODEN: BPXXDX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Portuguese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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BR 8704044	A	19880405	BR 1987-4044	19870807
US 4818525	A	19890404	US 1987-81471	19870804
US 4997650	A	19910305	US 1988-260194	19881116
PRIORITY APPLN. INFO.:			JP 1986-185222	A 19860808
			JP 1986-203737	A 19860901
			JP 1986-205104	A 19860902
			JP 1986-205105	A 19860902
			JP 1986-205897	A 19860903
			JP 1986-214006	A 19860912
			JP 1987-214130	A 19870727
			US 1987-81471	A3 19870804

OTHER SOURCE(S): MARPAT 110:90625

ED Entered STN: 17 Mar 1989

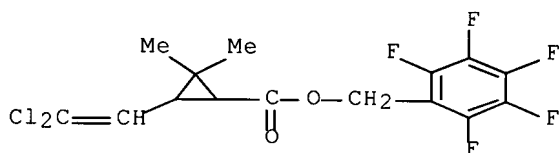
AB Persistent insecticidal films consist of a pyrethroid, phenoxyphenyl, biphenyl or phenoxypyridyl derivative insecticide, incorporated into an acrylic resin. A solution of 3-phenoxybenzyl 2-(4-hydroxyphenyl)-2-methylpropyl ether (preparation given) and tert-BuOK in DMI was treated with Br<sub>2</sub>CF<sub>2</sub> in DMI, to give 3-phenoxybenzyl 2-(4-difluorobromomethoxyphenyl)-2-methylpropyl ether (I). A mixture of 33 parts acrylonitrile, 62 parts Bu acrylate, 3 parts hydroxyethyl methacrylate and 2 parts methacrylic acid were emulsified in 40 parts water with 0.5 parts Na dodecylbenzenesulfonate followed by the addition of 60 parts water and 0.5 parts K persulfate, followed by copolymn. into a resin and addition of 1% I. Films formed by this resin were 100% lethal to cockroaches.

IT 67640-14-6

(insecticidal acrylic resin films containing)

RN 67640-14-6 HCAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, (pentafluorophenyl)methyl ester (9CI) (CA INDEX NAME)



IC A01N025-10; A01N039-00; A01N053-00

CC 5-4 (Agrochemical Bioregulators)

10/783,072

Section cross-reference(s): 25, 38

IT 51628-56-9 51630-58-1 52315-07-8 52645-53-1 52820-00-5  
 63935-38-6 64930-73-0 64930-75-2 66818-78-8 66841-25-6  
 67640-14-6 68359-37-5 68523-18-2 69605-91-0 70124-77-5  
 74025-33-5 75528-07-3 76660-88-3 80844-07-1 83493-20-3  
 89764-44-3 98919-83-6 99267-18-2 111856-48-5 111872-58-3  
 111872-59-4 111872-60-7 111872-61-8 115012-39-0 118808-72-3  
 118808-73-4

(insecticidal acrylic resin films containing)

L21 ANSWER 26 OF 26 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1988:418872 HCAPLUS Full-text

DOCUMENT NUMBER: 109:18872

TITLE: Insecticidal acrylic resin coating film

INVENTOR(S): Kamada, Keiichi; Kawamoto, Seiji; Yaegashi, Makoto; Shiraishi, Shiro

PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan

SOURCE: Eur. Pat. Appl., 35 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 257415	A1	19880302	EP 1987-111502	19870807
EP 257415	B1	19930331		
R: DE, FR, GB, NL				
JP 63183504	A	19880728	JP 1987-185623	19870727
JP 02033683	B	19900730		
US 4818525	A	19890404	US 1987-81471	19870804
AU 8776679	A	19880211	AU 1987-76679	19870807
AU 585727	B2	19890622		
CA 1289468	C	19910924	CA 1987-544037	19870807
US 4997650	A	19910305	US 1988-260194	19881116
PRIORITY APPLN. INFO.:			JP 1986-185222	A 19860808
			JP 1986-203737	A 19860901
			JP 1986-205104	A 19860902
			JP 1986-205105	A 19860902
			JP 1986-205897	A 19860903
			JP 1986-214006	A 19860912
			JP 1987-185623	A 19870727
			US 1987-81471	A3 19870804

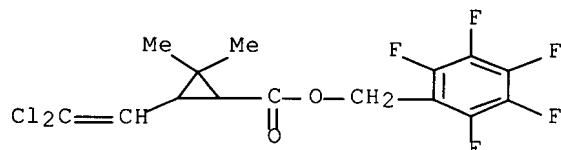
OTHER SOURCE(S): CASREACT 109:18872; MARPAT 109:18872

ED Entered STN: 22 Jul 1988

AB A sustained-release coated film comprises an insecticide containing a cyclopropylcarboxylate, phenoxybenzyl or benzylfurfurylmethyl group, incorporated into an acrylic resin. A solution of 3-phenoxybenzyl 2-(4-hydroxyphenyl)-2-methylpropyl ether and K tert-butoxide in DMI was added to a solution of Br<sub>2</sub>CF<sub>2</sub> in DMI, to give 3-phenoxybenzyl 2-(4-difluorobromomethoxyphenyl)-2-methylpropyl ether. Emulsion polymerization (Na

dodecylbenzenesulfonate emulsifier) was carried out of a mixture of Bu acrylate, hydroxyethyl methacrylate, methacrylate acid and acrylonitrile in water, at 70°, in the presence of K persulfate. 3-Phenoxybenzyl 2-(4-ethoxyphenyl)-2-methylpropyl ether (1 part by weight) was incorporated into the resin. Galvanized sheet steel coated with a film of the resin was lethal to cockroaches.

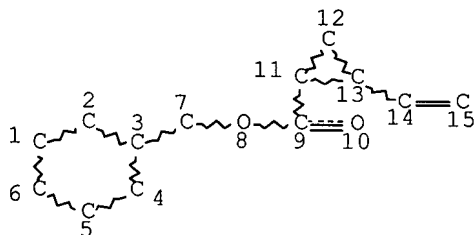
IT 67640-14-6  
 (insecticide, incorporated into resin coating film)  
 RN 67640-14-6 HCAPLUS  
 CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-,  
 (pentafluorophenyl)methyl ester (9CI) (CA INDEX NAME)



IC ICM A01N025-10  
 ICS A01N025-18  
 CC 5-4 (Agrochemical Bioregulators)  
 Section cross-reference(s): 38  
 IT 51628-56-9 51630-58-1 52315-07-8 52820-00-5 63935-38-6  
 64930-69-4 64930-75-2 64930-85-4 66818-78-8 66841-25-6  
 67640-14-6 68359-37-5 68523-18-2 69605-91-0 70124-77-5  
 74025-33-5 75528-07-3 76660-88-3 80844-07-1 83493-20-3  
 89764-44-3 98919-83-6 99267-18-2  
 (insecticide, incorporated into resin coating film)

=> d que 123

L3 STR



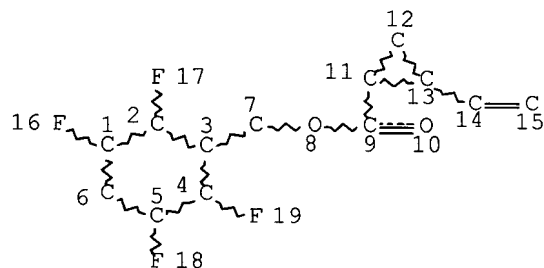
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 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
 RSPEC I  
 NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE  
 L5 3 SEA FILE=REGISTRY ABB=ON PLU=ON TRIISOPROPYL?/CNS AND  
 TRIOXANE?/CNS

L7

STR



## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RSPEC I

NUMBER OF NODES IS 19

## STEREO ATTRIBUTES: NONE

L9 6805 SEA FILE=REGISTRY SSS FUL L3  
 L13 751 SEA FILE=REGISTRY SUB=L9 SSS FUL L7  
 L14 820 SEA FILE=HCAPLUS ABB=ON PLU=ON L13  
 L15 82 SEA FILE=HCAPLUS ABB=ON PLU=ON L5  
 L16 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND L15  
 L18 28 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND (POLYMER? OR  
 PLASTIC?)/SC,SX  
 L20 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND (POLYMER? OR  
 PLASTIC?)/SC,SX  
 L21 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 NOT L16  
 L22 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 NOT L16  
 L23 10 SEA FILE=HCAPLUS ABB=ON PLU=ON L22 NOT L21

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L23 ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:739056 HCAPLUS Full-text

DOCUMENT NUMBER: 141:244393

TITLE: Polymer compositions with controled bleed-up and their manufacturing method

INVENTOR(S): Takahashi, Hisashi; Takahashi, Mitsuo; Iwahara, Miho; Takagi, Shigeki

PATENT ASSIGNEE(S): Fumakilla Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

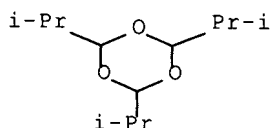
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004250675	A	20040909	JP 2004-3628	20040109
PRIORITY APPLN. INFO.:			JP 2003-23373	A 20030131

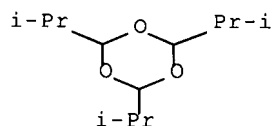
ED Entered STN: 10 Sep 2004  
 AB Title compns. comprise (A) thermoplastic resins, (B) organic additives and/or biol. active substances, and (C) sublimable substances. Thus, a composition comprising Evaflex P 1405 61, Sumithrin 14, triisopropyl-S-trioxane 20, and AZ 200 silica 5% was mixed, kneaded, and injection-molded to give a plate with no Sumithrin bleed up to 150 days.  
 IT 7580-12-3, Triisopropyl-S-trioxane  
 (polymer compns. with controlled bleed-up)  
 RN 7580-12-3 HCAPLUS  
 CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



IC ICM C08L101-00  
 ICS C08K003-00; C08K005-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 IT 76-22-2, Camphor 91-20-3, Naphthalene, uses 106-46-7,  
 p-Dichlorobenzene 7580-12-3, Triisopropyl-S-trioxane  
 53607-03-7, Tri-tert-butyl-S-trioxane 54175-17-6, Tricyclodecane  
 (polymer compns. with controlled bleed-up)  
 L23 ANSWER 2 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2003:349460 HCAPLUS Full-text  
 DOCUMENT NUMBER: 138:339133  
 TITLE: Solid polyethylene glycol compositions with slow  
 solubility in water and toilet deodorants using  
 them  
 INVENTOR(S): Oda, Tatsuo; Watanabe, Tetsuro; Baba, Tadashi  
 PATENT ASSIGNEE(S): World Bio K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003128908	A	20030508	JP 2001-320979	20011018
PRIORITY APPLN. INFO.:			JP 2001-320979	20011018

ED Entered STN: 08 May 2003  
 AB The compns. contain solid polyethylene glycol (I) and solubility controlling agents of triisopropyltrioxane (II) and p-hydroxybenzoates. Thus, a deodorant comprising I, II, Bu p-hydroxybenzoate, fumaric acid, Bacillus subtilis, and other additives showed good deodorization effect for more than 30 days in a toilet.  
 IT 7580-12-3, 2,4,6-Triisopropyltrioxane  
 (solubility controlling agent; solid polyethylene glycol compns. with slow solubility in water for toilet deodorants)  
 RN 7580-12-3 HCAPLUS  
 CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)

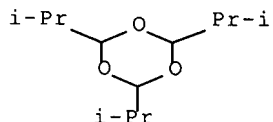


IC ICM C08L071-02  
 ICS A61L009-01; C08K005-092; C08K005-101; C08K005-159  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 59  
 IT 94-26-8, Butyl p-hydroxybenzoate 7580-12-3,  
 2,4,6-Triisopropyltrioxane  
 (solubility controlling agent; solid polyethylene glycol compns. with  
 slow solubility in water for toilet deodorants)

L23 ANSWER 3 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 2002:381280 HCAPLUS Full-text  
 DOCUMENT NUMBER: 136:386145  
 TITLE: Preparation of trioxanes using zirconium catalysts  
 INVENTOR(S): Ishii, Yasutaka; Nakano, Tatsuya  
 PATENT ASSIGNEE(S): Daicel Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002145877	A	20020522	JP 2000-336767	20001102
PRIORITY APPLN. INFO.:			JP 2000-336767	20001102

OTHER SOURCE(S): CASREACT 136:386145; MARPAT 136:386145  
 ED Entered STN: 22 May 2002  
 AB Trioxanes are prepared by treating RCHO (R = H, organic group) with Zr catalysts. PrCHO was treated with Cp<sub>2</sub>Zr(OTf)<sub>2</sub> in C<sub>6</sub>H<sub>6</sub> at room temperature for 5 h to give 50% 2,4,6-tripropyl-1,3,5-trioxane.  
 IT 7580-12-3P, 2,4,6-Triisopropyl-1,3,5-trioxane  
 (preparation of trioxanes from aldehydes using Zr catalysts)  
 RN 7580-12-3 HCAPLUS  
 CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



IC ICM C07D323-06  
 ICS C07B061-00  
 CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 35



IT 123-63-7P, 2,4,6-Trimethyl-1,3,5-trioxane 2396-43-2P,  
 2,4,6-Tripropyl-1,3,5-trioxane 6556-71-4P 7510-30-7P,  
 2,4,6-Tripentyl-1,3,5-trioxane 7580-12-3P,  
 2,4,6-Triisopropyl-1,3,5-trioxane 22428-09-7P 53607-03-7P  
 68498-10-2P, 2,4,6-Triheptyl-1,3,5-trioxane 68870-68-8P  
 184480-08-8P

(preparation of trioxanes from aldehydes using Zr catalysts)

L23 ANSWER 4 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:97629 HCAPLUS Full-text

DOCUMENT NUMBER: 136:386501

TITLE: Tandem reactions of Friedel-Crafts/aldehyde  
 cyclotrimerization catalyzed by an organotungsten  
 Lewis acid

AUTHOR(S): Wang, Hsing-Shiun; Yu, Shuchun Joyce

CORPORATE SOURCE: Department of Chemistry, National Chung Cheng  
 University, Ming Hsiung, Chia Yi, 621, Taiwan

SOURCE: Tetrahedron Letters (2002), 43(6), 1051-1055

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 06 Feb 2002

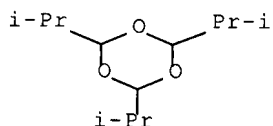
AB The tris(2-pyridyl)phosphine complex [P(2-py)3W(CO)(NO)2](BF4)2 acts as a  
 Lewis acid catalyst precursor for the tandem reactions of Friedel-  
 Crafts/aldehyde cyclotrimerization, which lead to the formation of a series of  
 hyper-branched star polymers.

IT 7580-12-3P

(tandem reactions of Friedel-Crafts/aldehyde cyclotrimerization  
 catalyzed by organotungsten Lewis acid)

RN 7580-12-3 HCAPLUS

CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)

IT 123-63-7P 2396-42-1P 2396-43-2P 7510-29-4P 7580-12-3P  
 31326-21-3P 78466-07-6P 161330-78-5P 161747-03-1P 396727-69-8P  
 427898-87-1P 427898-88-2P

(tandem reactions of Friedel-Crafts/aldehyde cyclotrimerization  
 catalyzed by organotungsten Lewis acid)

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L23 ANSWER 5 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1996:649738 HCAPLUS Full-text

DOCUMENT NUMBER: 125:301026

TITLE: Method for producing 2,4,6-trialkyl-1,3,5-trioxane  
 by cyclotrimerization of aldehyde

INVENTOR(S): Harada, Yasuhiro; Tanaka, Kunio; Masuda, Hideki;  
 Izumi, Kenjiro

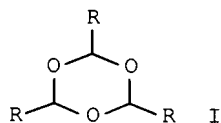
PATENT ASSIGNEE(S): Ogawa Koryo Kk, Japan

10/783,072

SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE -----
JP 08225565	A	19960903	JP 1995-31984	19950221
JP 3790560	B2	20060628		
PRIORITY APPLN. INFO.:			JP 1995-31984	19950221

OTHER SOURCE(S): CASREACT 125:301026; MARPAT 125:301026  
 ED Entered STN: 04 Nov 1996  
 GI



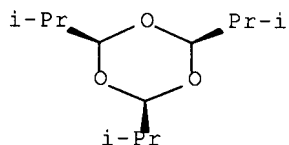
AB The title compds. (I; R = C1-6 linear or branched alkyl) are prepared by cyclotrimerization of aldehydes in the presence of MeSO<sub>3</sub>H. This process inexpensively gives in good yields in an industrial scale, I which are nontoxic, nonirritable, odorless, and colorless and are useful as epoxy resin hardeners and bases for sublimable formulations. Thus, a mixture of 64 g isobutyraldehyde and 64 g PhMe was cooled to -5°, followed by adding 0.64 g MeSO<sub>3</sub>H, and the resulting mixture was stirred for 1 h to after workup and recrystn. from MeOH, 84% cis,cis-I (R = iso-Pr).

IT 55021-14-2, cis,cis-2,4,6-Triisopropyl-1,3,5-trioxane  
 (method for producing trialkyltrioxane by cyclotrimerization of aldehyde)

RN 55021-14-2 HCAPLUS

CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)-,  
 (2α,4α,6α)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IC ICM C07D323-06

ICS B01J031-02

ICA C07B061-00

CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 37

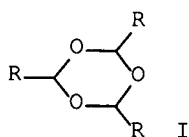
IT 75-75-2, Methanesulfonic acid 55021-14-2,

cis,cis-2,4,6-Triisopropyl-1,3,5-trioxane  
(method for producing trialkyltrioxane by cyclotrimerization of aldehyde)

L23 ANSWER 6 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1993:254969 HCAPLUS Full-text  
 DOCUMENT NUMBER: 118:254969  
 TITLE: Preparation of aldehyde cyclotrimers with heteropoly acids as catalysts  
 INVENTOR(S): Sato, Tomoji; Nozaki, Fumio; Matsui, Junji  
 PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 04364177	A	19921216	JP 1991-50750	19910222
PRIORITY APPLN. INFO.:			JP 1991-50750	19910222

OTHER SOURCE(S): CASREACT 118:254969; MARPAT 118:254969  
 ED Entered STN: 26 Jun 1993  
 GI

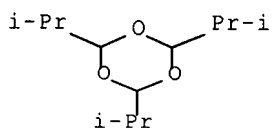


AB Aldehyde cyclotrimers I (R = hydrocarbonyl), useful as crosslinking agents for epoxy resins (no data), are prepared by treatment of RCHO (R = same as above) in the presence of heteropoly acids as catalysts. I are easily separated from the reaction mixts. by liquid-liquid phase separation and the catalysts are recycled. Propionaldehyde was treated with phosphomolybdic acid at room temperature for 6 h and the reaction mixture was subjected to liquid-liquid separation to give 86.6% 1,3,5-triethyl-2,4,6-trioxane, vs. unsuccessful liquid-liquid phase separation, when FeCl<sub>3</sub> was used instead of the catalyst.

IT 7580-12-3P  
 (preparation of, from aldehyde)

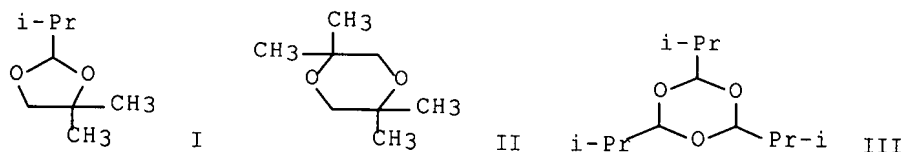
RN 7580-12-3 HCAPLUS

CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



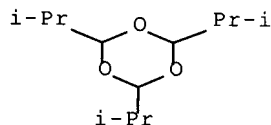
IC ICM C07D323-06  
 ICS B01J023-24; B01J027-19  
 ICA C07B061-00  
 CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))  
 Section cross-reference(s): 37  
 IT 2396-42-1P 2396-43-2P 7510-30-7P 7580-12-3P  
 (preparation of, from aldehyde)

L23 ANSWER 7 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1979:492026 HCAPLUS Full-text  
 DOCUMENT NUMBER: 91:92026  
 TITLE: Cationic oligomerization of isobutylene oxide  
 AUTHOR(S): Yamashita, Yuya; Iwao, Katsumi; Ito, Koichi  
 CORPORATE SOURCE: Fac. Eng., Nagoya Univ., Nagoya, 464, Japan  
 SOURCE: Polymer Bulletin (Berlin, Germany) (1978), 1(1),  
 73-7  
 CODEN: POBUDR; ISSN: 0170-0839  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 12 May 1984  
 GI



AB Dioxolane-type dimer (I) [618-43-9] and trioxane-type trimer (III) [7580-12-3] were the principal products formed by cationic polymerization of isobutylene oxide [558-30-5] at room temperature. At low temps., polymer formation accompanied by formation of dioxane-type dimer (II) [5588-75-0] through back-biting reaction was predominant. Isomerized oligomers were formed by hydride transfer, which occurred easily at room temperature. Mechanisms for these reactions were proposed, and the effect of solvent and initiator on the mechanism was discussed.

IT 7580-12-3P  
 (formation of, in cationic oligomerization of isobutylene oxide)  
 RN 7580-12-3 HCAPLUS  
 CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



CC 35-3 (Synthetic High Polymers)  
 IT 618-43-9P 5588-75-0P 7580-12-3P  
 (formation of, in cationic oligomerization of isobutylene oxide)

L23 ANSWER 8 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1966:448090 HCAPLUS Full-text

DOCUMENT NUMBER: 65:48090

ORIGINAL REFERENCE NO.: 65:9034b-f

TITLE: Preparation and polymerization of  
isopropyltrioxane

AUTHOR(S): Paulet, Robert; Dubosc, Jean Pierre; Etienne, Yves

CORPORATE SOURCE: Labs. Rech. Kodak-Pathe, Vincennes

SOURCE: Bulletin de la Societe Chimique de France (1966),  
(4), 1426-30

CODEN: BSCFAS; ISSN: 0037-8968

DOCUMENT TYPE: Journal

LANGUAGE: French

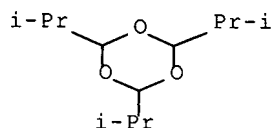
ED Entered STN: 22 Apr 2001

AB Substituted trioxanes are prepared by application of the method of Dermer and Jenkins (CA 54, 565c) to the system HCHO-iso-PrCHO by using a diluent (anhydrous CH<sub>2</sub>Cl<sub>2</sub>) and H<sub>2</sub>SO<sub>4</sub> as catalyst. Thus, 80 g. trioxymethylene was heated to 175° and the HCHO vapor swept through a heated tube by a stream of N and condensed in a trap containing Actigel at -78°. The HCHO is distilled at room temperature, recondensed in a similar trap, and finally distilled into a reactor containing 72 g. iso-PrCHO and 150 ml. CH<sub>2</sub>Cl<sub>2</sub> at -50°. An ampul containing 1 + 10<sup>-3</sup> mole H<sub>2</sub>SO<sub>4</sub> catalyst is broken into the magnetically stirred mixture. The reaction is instant and the temperature is maintained at -50° by rapid addition of solid CO<sub>2</sub> to the cooling bath for 3-4 hrs. The temperature is then raised slowly and the trioxane crystals formed are redissolved. The solution is filtered (.apprx.2 g. trioxymethylene remains insol.), neutralized with K<sub>2</sub>CO<sub>3</sub> powder, refiltered, concentrated under pressure, and distilled. The fraction passing over between 85 and 115° (.apprx.38 ml.) consists of a mixture of the 2 substituted trioxanes, the residue being triisopropyltrioxane (I). The mono- (I) and diisopropyltrioxanes (II) are separated by means of a spinning-band distillation column and their characteristics are summarized in tabular form. Polymerization is carried out by heating 2 g. I and 12 ml. dry distilled methylcyclohexane for 5 min. at 70°, adding 0.08 + 10<sup>-3</sup> mole BF<sub>3</sub>.Bu<sub>2</sub>O (1.16 + 10<sup>-2</sup> mole/l. solution in methylcyclohexane), and heating at 70° for 30 min. The precipitated polymer is filtered, washed, dried, and stabilized, giving a 14% yield of a white powder. II under the same conditions gives no polymer, probably because of steric hindrance of the O atoms. Comparison of the elemental analysis of the polymer obtained from I with that of a polyoxymethylene obtained from s-trioxane under the same conditions shows that whatever the cyclic monomer, the resulting polymer is always an unsubstituted poly(oxymethylene), with virtually no iso-Pr groups entering the polymer chain. This is confirmed by the low polymer yield, the lack of absorption in the iso-Pr group of the ir spectra, the identical results for the gas chromatography of the pyrolyzates of the 2 polymers, and recovery of the theoretical amts. of iso-PrCHO (determined by quant. chromatography) on distilling the filtered solution obtained after polymerization of the I. Polymerization of the isopropyltrioxanes by ring opening by using a Lewis acid initiator therefore does not give copolymers having regular sequences of the corresponding aldehydes. A polymerization mechanism is suggested for I, starting with splitting of the ring into the 3 main parts, which then form a linear polymer.

IT 7580-12-3P, s-Trioxane, 2,4,6-triisopropyl-  
(preparation of)

RN 7580-12-3 HCAPLUS

CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



CC 45 (Synthetic High Polymers)  
 IT 7580-12-3P, s-Trioxane, 2,4,6-triisopropyl- 10375-32-3P,  
 s-Trioxane, 2,4-diisopropyl- 13384-57-1P, s-Trioxane, 2-isopropyl-  
 (preparation of)

L23 ANSWER 9 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1966:52390 HCAPLUS Full-text  
 DOCUMENT NUMBER: 64:52390  
 ORIGINAL REFERENCE NO.: 64:9824c-e  
 TITLE: Cyclocopolymerization of diallyl compounds and  
 sulfur dioxide. I. Diallylamine hydrochloride and  
 sulfur dioxide  
 AUTHOR(S): Harada, Susumu; Katayama, Masamichi  
 CORPORATE SOURCE: Nitto Boseki Co., Ltd., Koriyama, Japan  
 SOURCE: Makromolekulare Chemie (1966), 90, 177-86  
 CODEN: MACEAK; ISSN: 0025-116X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

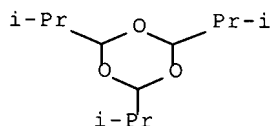
ED Entered STN: 22 Apr 2001

AB Copolymers of the title monomers were prepared in Me<sub>2</sub>SO, HCONMe<sub>2</sub>, or MeOH with (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, tert-BuOOH, or [Me<sub>2</sub>C(CN)N:]<sub>2</sub> as initiator at -20 to 80° under air or N. Elemental analysis, inherent viscosity, thermal stability, and ir spectra of the polymers were determined. The copolymer was a white, amorphous, hygroscopic solid which decomposed at >200° without melting. It was insol. in the usual organic solvents, but easily soluble in H<sub>2</sub>O. Elemental analysis indicated a 1:1 ratio of monomers in the copolymer regardless of monomer ratio in the charge, and ir spectra showed no unsatn., thus indicating an intramol. cyclization step. A copolymer structure consistent with these results is suggested.

IT 7580-12-3P, s-Trioxane, 2,4,6-triisopropyl-  
 (preparation of)

RN 7580-12-3 HCAPLUS

CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



CC 45 (Synthetic High Polymers)  
 IT 7580-12-3P, s-Trioxane, 2,4,6-triisopropyl-  
 (preparation of)

L23 ANSWER 10 OF 10 HCAPLUS COPYRIGHT 2007 ACS on STN  
 ACCESSION NUMBER: 1966:52389 HCAPLUS Full-text  
 DOCUMENT NUMBER: 64:52389  
 ORIGINAL REFERENCE NO.: 64:9824b-c

TITLE: Environmental effects in free-radical polymerization. I. Acrylonitrile and butyraldehydes

AUTHOR(S): Burnett, G. M.; Hay, S. W.; Ross, F. L.

CORPORATE SOURCE: Univ. Aberdeen, UK

SOURCE: Polimery (1965), 10(1), 8-14

DOCUMENT TYPE: Journal

LANGUAGE: Polish

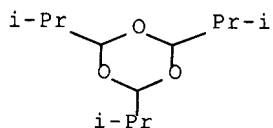
ED Entered STN: 22 Apr 2001

AB It had been shown previously (Rosen and Burleigh, CA 60, 5645b), that stereoregular polymers were formed during the free-radical polymerization of vinyl chloride and acrylonitrile (I) in the presence of aliphatic aldehydes. In the present study, the free-radical polymerization of I in the presence of butyraldehyde and isobutyraldehyde (II) is compared with the usual polymerization in the presence of a typical transfer agent (PhNMe<sub>2</sub>). It is suggested on the basis of polymerization kinetics, as well as ir spectroscopic examination and x-ray analysis of the polymer, that the aldehyde acts only as a very-active transfer agent and that the low-mol-weight polyacrylonitrile obtained is not more syndiotactic as compared with the normal polymer, but more crystalline because of its very much lower mol. weight. Some addnl. ir absorption bands of polyacrylonitrile obtained in the presence of II are caused by an admixt. of a cyclic trimer of II (m. 64°, soluble in CHCl<sub>3</sub>, and sparingly soluble in MeOH and HCONMe<sub>2</sub>).

IT 7580-12-3P, s-Trioxane, 2,4,6-triisopropyl-  
(preparation of)

RN 7580-12-3 HCAPLUS

CN 1,3,5-Trioxane, 2,4,6-tris(1-methylethyl)- (CA INDEX NAME)



CC 45 (Synthetic High Polymers)

IT 7580-12-3P, s-Trioxane, 2,4,6-triisopropyl-  
(preparation of)

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(FILE 'HOME' ENTERED AT 12:49:27 ON 18 JUN 2007)

FILE 'HCAPLUS' ENTERED AT 12:49:33 ON 18 JUN 2007

L1 1 SEA ABB=ON PLU=ON US20050186874/PN  
D SCA  
SEL RN

FILE 'REGISTRY' ENTERED AT 12:49:48 ON 18 JUN 2007

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240494-69-3/BI OR 240494-70-6/BI OR 24937-78-8/BI OR  
25101-13-7/BI OR 271241-14-6/BI OR 345902-35-4/BI OR  
557086-46-1/BI OR 74-85-1/BI OR 7580-12-3/BI OR 9002-88-4/B  
I)  
L3 STR  
L4 50 SEA SSS SAM L3  
L5 3 SEA ABB=ON PLU=ON TRIISOPROPYL?/CNS AND TRIOXANE?/CNS  
L6 1 SEA ABB=ON PLU=ON L2 AND L5  
L7 STR L3  
L8 34 SEA SSS SAM L7  
L9 6805 SEA SSS FUL L3  
SAV L9 EGW072/A  
L10 6 SEA ABB=ON PLU=ON L9 AND L2  
L11 6 SEA ABB=ON PLU=ON L2 NOT L10  
L12 34 SEA SUB=L9 SSS SAM L7  
L13 751 SEA SUB=L9 SSS FUL L7  
SAV L13 EGW072A/A

FILE 'HCAPLUS' ENTERED AT 12:58:16 ON 18 JUN 2007

L14 820 SEA ABB=ON PLU=ON L13  
L15 82 SEA ABB=ON PLU=ON L5  
L16 10 SEA ABB=ON PLU=ON L14 AND L15  
L17 2 SEA ABB=ON PLU=ON L14 AND POLYMER?/SC,SX  
L18 28 SEA ABB=ON PLU=ON L14 AND (POLYMER? OR PLASTIC?)/SC,SX  
L19 1 SEA ABB=ON PLU=ON L18 AND L1  
L20 12 SEA ABB=ON PLU=ON L15 AND (POLYMER? OR PLASTIC?)/SC,SX  
L21 26 SEA ABB=ON PLU=ON L18 NOT L16  
L22 10 SEA ABB=ON PLU=ON L20 NOT L16  
L23 10 SEA ABB=ON PLU=ON L22 NOT L21

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L26 5 SEA ABB=ON PLU=ON 7580-12-3/CRN

FILE 'HCAPLUS' ENTERED AT 13:12:30 ON 18 JUN 2007

L27 2 SEA ABB=ON PLU=ON L26  
L28 1 SEA ABB=ON PLU=ON L27 AND L14  
L29 11 SEA ABB=ON PLU=ON L16 OR